

NEWS: EUROPE

EUROPEAN PRESS REVIEW

Paris under attack on welfare costs

By David Owen in Paris

The French government came under attack from trade unions and the opposition Socialist party yesterday following reports that this year's social security deficit could reach three times the target set by Prime Minister Alain Juppé.

The reports, which threatened to cast fresh doubt over France's ability to qualify for the single European currency, said a document to be published on Wednesday would indicate that the 1996 social security deficit could reach FF 98.6bn (US \$9.45bn).

According to the reports, the document – a paper by the social security audit commission – would attribute the disappointing figure to a fall in receipts caused by a gloomier than expected economic outlook. They said the commission would warn that it would be "imprudent" to count on a return to equilibrium in 1997.

The opposition claimed the figures, which were not officially confirmed, showed the government had not brought health spending under control. "One might have thought that after so many deductions from wages the social security def-

cit would have been absorbed," said a Socialist party spokesman. Mr Marc Blondel, leader of the Force Ouvrière union, said Mr Juppé had "deceived us by telling us things would be better tomorrow".

Mr Juppé, who last year set an objective of FF 16.6bn for this year's social security deficit, was on his way to Canada. However, Mr Jacques Barrot, social affairs minister, said that, far from calling into question the social security reform plan, the forecast deficit made its implementation more necessary.

The government has set itself the target of reducing this year's overall deficit to 4 per cent of national output. This is as a stepping stone to its goal of bringing the combined budget and social security deficit to 3 per cent in 1997, in order to qualify for European monetary union.

A few months ago, the European Commission forecast that the French deficit would be about 3.6 per cent of gross domestic product in 1997. But, in projections published last month, it lowered its prediction to 3 per cent after Paris asked it to take planned spending cuts into consideration.

BRITAIN

By Michael Thompson-Noel

In Britain, for the moment, the giggling has ceased. Britain may even be approaching its *heure de vérité* – its hour of truth – as European Commission President Jacques Santer warned at the weekend.

Mr Santer was referring to Britain's beef war with the European Union following Europe's ban on sales of British beef as a result of the scare over mad cow disease.

But the sullen soberity suddenly evident in the British media has little to do with Mr Santer's warning that Britain could find itself friendless in Europe because of the beef war – and everything to do with Euro '96, the European soccer finals, which started in London on Saturday.

For weeks, Britain's strictly competitive press has revelled in one of its favourite games: Euro-bashing. Most British newspapers normally treat Europe as low comedy, and the beef war has provided them to fresh heights of xenophobic fancy.

But "Europe" is no longer "over there". For the next three weeks "Europe" is "here". Indeed, the "Europe" that has invaded England for

the European soccer finals is a multi-talented task force that would doubtless like nothing better than to kick the English team – which excels in helplessness: their opening game on Saturday was a 1-1 draw against Switzerland's dullards – to bits.

It is a futuristic looking invasion force: 15 national teams from continental Europe, including Russia, Romania, Bulgaria, Croatia, the Czech Republic and Turkey – not so much Europe as Eurasia.

In *The Times* on Saturday, chief soccer writer Rob Hughes, sounding forlorn, stated: "It is time to accentuate the positive... The country must bond together to ensure that Euro '96 runs smoothly... For three weeks, the motherland of the world's most popular game will undergo something like a rebranding, meaning there would be pain, expectancy, fear".

The fear he was referring to is palpable throughout the UK press: fear that the English team will look ridiculous (Scotland are playing, too, but no one takes them seriously); fear that England may botch its staging of the world's third biggest sports event; fear that English cities will look ugly and impoverished to an estimated 250,000 visiting supporters;

ers; above all, fear of violence. In *The Daily Mail*, Ian Wooldridge wrote that, far from anticipating a carnival, millions of his countrymen were cringing in apprehension of the next three weeks.

As usual, the greatest insolence was shown by *The Sunday Times*, which peered beyond Euro '96 to claim that last week's four-year, £743m TV rights deal between Rupert Murdoch's satellite broadcaster BSkyB, the BBC and England's Premier soccer division "could transform English football into the finest in the world".

The best that the *Daily Star* could do was work up a claim that British sports fans were going "utterly mad" in a "£250m (\$161m) scramble to gamble" on Euro '96 and other sports events, while *The Sun*, famously insular, persevered with its doomsday "Road to England" campaign.

However, *The Sun* could not resist one of its little jokes. Because Euro '96 would be thirsty work, it said, it had devised some special cocktails, including the "Sour Kraut". Yesterday, the Sunday papers' bulging sports sections wrestled with the task of explaining why England had been unlucky not to beat Switzerland in London on Saturday.

They did not want to be too rude about the Swiss (or the reference), but neither were they quite ready to dwell on England's rotteness.

EUROPEAN NEWS DIGEST

Germany's FDP sharpens image

The leadership of Germany's liberal Free Democratic party (FDP) – Chancellor Helmut Kohl's junior coalition partner – has received overwhelming support to discard its left-leaning programme and instead focus on a free-market economy.

The decision, made at the FDP's party congress in Karlsruhe at the weekend, is aimed at broadening its support and winning back disaffected voters.

Mr Guido Westerwelle, the FDP's general secretary, who has forged a new identity for the party, said it was time liberals stood up for what they believed in: less bureaucracy, low taxation and a society free from stifling regulation.

Although the 680 delegates threw their support behind Mr Westerwelle, the enthusiasm is likely to give way to sober realism as it becomes clear the FDP faces difficulties in influencing key decisions by the coalition.

For instance, in spite of Mr Westerwelle's criticism of the government's decision to back down on reform of Germany's shopping hours, cabinet tomorrow is expected to endorse a compromise draft law which will allow shops to remain open by just an additional two hours to 8pm on weekdays, and leave unchanged the usual 2pm closure on Saturdays. In addition, Mr Günter Rexrodt, the FDP's federal economics minister, and his aides are unlikely to persuade Mr Kohl to press for a more liberal European energy law.

Judy Dempsey, Berlin

Islamists seek Turkish coalition

Turkey's Islamist Refah party today begins consultations with the first of five political parties in parliament in an attempt to put together a coalition government.

Mr Necmettin Erbakan, Refah's leader, is to meet Mr Muhamed Yazicioglu, leader of the Grand Union party, a small nationalist-Islamist group with eight seats in the 550-member parliament.

Mr Erbakan is expected to meet Mr Mesut Yilmaz, the caretaker prime minister and head of the conservative Motherland party, and Mrs Tansu Ciller leader of the True Path party, later in the week.

Few commentators expect he will be any more successful in forming a government now than in January, when he tried and failed to form a government following inconclusive general elections in December.

John Berham, Ankara

Albanian opposition still defiant

Albania's opposition parties are maintaining their boycott of the country's disputed general election despite a government proposal to re-run elections in 17 of the 115 constituencies.

In an apparent concession to the opposition, Albanian President Sali Berisha said at the weekend that fresh elections would take place on June 16 in 17 areas where there had been significant irregularities.

The move follows heavy criticism from opposition leaders, foreign observers and western governments of ballot rigging and intimidation in the May 26 general election.

"We cannot accept a partial re-run if there is no general recognition of all the violations. Berisha's decree is not the solution. This is the President's play to hide [the manipulations] from the world," said Mr Skender Gjinushi, chairman of the opposition Social Democratic party. The US and the European Union have both called for a partial re-run of the election, but it is unclear whether a new poll in 17 zones will satisfy their demands.

Mariam Sullivan, Tirana

Iliecu seeks third term

President Ion Iliescu of Romania is to stand for a third term on the ticket of the governing Party of Social Democracy (PSDR) in elections scheduled for November 3.

Party officials said the president, who has led Romania since the overthrow of the Ceausescu regime in 1989, had asked them to start collecting the 100,000 signatures needed to qualify as a candidate.

The announcement will be a boost to the party ahead of Sunday's second round of local elections after its poor performance in the first round.

Results released at the weekend showed that the centre-left PSDR, which includes many former senior communists, won 21.6 per cent in the first round, more than any other group. However, the centre-right Democratic Convention and the centrist Union of Social Democrats, the two main opposition groups, together won 29.5 per cent.

Virginia Morris, Budapest

Geneva votes against crossing

Geneva voters have rejected construction of a new SFr700m (US\$500m) crossing over their lake, official referendum returns indicated last night.

Counts from 60 polling stations out of 75, covering two-thirds of the registered electorate, showed 57 per cent voting against a bridge and 69 per cent against a tunnel – the two projects proposed by the Geneva cantonal government.

Analysts said the projects – the latest in over a century of debate – were doomed for the next few years.

A new crossing, to relieve growing congestion in the city centre served by only one 19th century bridge across the river Rhone at the mouth of the lake, was approved in principle by 68 per cent in an earlier referendum in 1988.

Roger Genera

Fresh bread on holiday menu

The east German state of Mecklenburg-Vorpommern has become the first regional government to allow its bakers to bake bread on Sundays and bank holidays, defying an imperial decree dating back to 1915.

The decision by the state, governed by Chancellor Helmut Kohl's Christian Democratic Union (CDU) in coalition with the Social Democratic party (SPD), applies only to bakeries in inner cities and holiday resorts and was prompted by purely pragmatic reasons.

With beautiful lakes, scenery and a long coast, the state is dependent on tourism as a revenue earner and opposes any move by Bonn likely to force the state's hotels to serve visitors stale or tired *Brotchen*, or rolls. The 1915 decree, under which bakers are not allowed to bake bread between 10pm and 6am, was originally introduced to preserve grain stocks for the war effort.

Judy Dempsey, Berlin

Slovenia shoves its foot in the door of EU

Kevin Done on Ljubljana's fight to overcome Italian objections to an association agreement

After a final punishing sprint, Slovenia, the most prosperous of the states to emerge from former communist east Europe, will make it to the starting line today to join the competition for entry into an enlarged European Union.

The most developed of the six former Yugoslav republics, Slovenia will become the 10th country from east Europe to sign an association agreement with the EU at a ceremony in Luxembourg this afternoon.

In a further crucial step towards integration with the west it is also due to close tomorrow – barring any last-minute legal hitch – its landmark debt deal with the London Club of commercial banks, finally extricating itself from the problems of the debts amassed by former Yugoslavia.

Five years after declaring its independence and fighting a brief war with Belgrade, Slovenia is moving fast to overcome its Yugoslav legacy. The association agreement with Brussels will bring it into the line-up for EU membership alongside the front-runners, Poland, the Czech Republic and Hungary, and should allow it to leap-frog the other EU associates Slovakia, Romania,

Bulgaria and the three Baltic states.

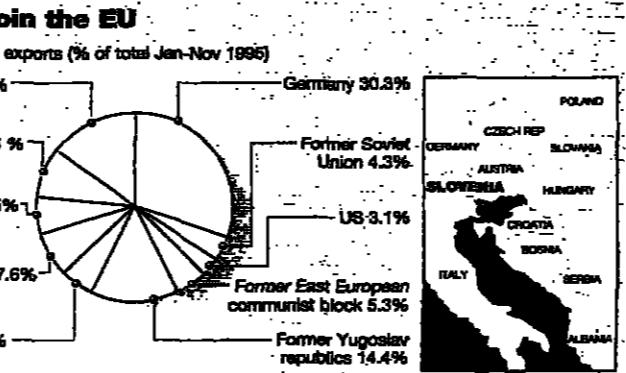
A formal application from Slovenia for full EU membership is expected to follow shortly.

Its efforts to gain associate status have been hampered for more than two years by Italy, its biggest neighbour, which has used Slovenia's application to pursue its own narrow agenda for property restitution and rights for Italian citizens to buy property in Slovenia.

Just as it was finally overcoming Italian objections – helped by the recent change of government in Rome – Slovenia looked alarmingly as if it was about to become a victim of the British beef crisis and the UK government's policy of non-co-operation with Brussels. It took days of frantic diplomacy last week to remove the UK hurdle.

Ljubljana had to move fast to convince London that this might be its last opportunity to gain associate membership.

Associate membership is a key part of the "pre-accession strategy" for countries from central and east Europe. The candidate countries must have replied by July 27 to Brussels questionnaires, which will form the basis for the Commis-



SION preparing its opinions on the suitability of individual countries for full EU membership.

"We thought the train was leaving the station without us, but now we have a chance to change the direction of the queue for EU membership," said Mr Matjaz Slinko, Slovenian ambassador in London. "We are extremely glad about the decision of the British government and it demonstrates our excellent bilateral relations and a close understanding on a number of international issues including the widening of the EU."

Such understanding has for long been absent in the acrimonious relations between Ljubljana and Rome, which have soured Slovenia's early enthusiasm for the European cause.

Slovenia, an alpine republic bordered by Italy, Austria, Hungary, Croatia and the Adriatic sea, has always considered that it should be at the front rather than at the back of the queue for EU membership, where it had been consigned by the former rightwing Italian government of Mr Silvio Berlusconi.

Capitalising on Slovenia's newly won independence, Rome demanded that Italian citizens, or their descendants, be able to recover property owned in what was once Italy's

and is now Slovenia's part of the Istrian peninsula.

In 1945 many Italians living in the coastal area of Istria south of Trieste opted to leave their homes, forfeiting their properties, after administration of the area was awarded to Yugoslavia. Slovenia claimed that all these issues including financial compensation had been fully regulated by two treaties in the 1970s and early 1980s, but the Berlusconi government decided otherwise.

The impasse was broken by the new leftwing government of Mr Romano Prodi, which has been more sympathetic to its small neighbour's pleas.

It is hard to find an independent economist with a kind word for such remedies. Rather, they argue the programme highlights the authors' inability to appreciate how much the economy has changed and betrays a Soviet-era mindset, which stresses that industrial output is the only worthwhile economic measure, irrespective of whether the goods produced have any market value.

The chief elements include:

- Forcing oil and gas companies to cut their prices to stimulate manufacturing industry.
- Raising import tariffs to protect domestic manufacturers while re-establishing a state monopoly over strategic exports.
- Creating a state-controlled industrial reconstruction bank to invest in strategic sectors;
- Increasing state spending on social welfare, pensions, education, and science;
- Forcibly curtailing capital flight and encouraging savers to exchange US dollar savings into roubles.

Others argue the programme would unleash a new wave of hyperinflation, which would devastate the pensioners and the poor whom the Communists are most anxious to help. "Mr Zyuganov seems to believe money supply is the lifeblood of the economy and the more you have of it the better it is," says one western economist.

"The programme is an angry mixture of populism and protectionism which shows a complete lack of understanding of basic economics."

If fully implemented, Mr Zyuganov's programme would violate the terms of the current government's \$10.2bn three-year financial stabilisation loan granted by the International Monetary Fund.

Mr Michel Camdessus, the IMF's managing director, has left no doubt he would axe the loan if a future Communist government loosened the monetary reins and rebuilt trade barriers. By itself, that action would almost certainly spark a surge of inflationary expectations, a run on the rouble, the collapse of the gov-

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What The Sunday Times meant was that top English clubs, buttressed by further sums from its own proprietor, were now in a position to sign up more of the foreign soccer stars who will be on view during Euro '96.

BOJ ponders timing of interest rate rise

William Dawkins on Japan's economic recovery

It may seem perverse that the Tokyo capital markets greeted the latest evidence of Japanese economic recovery not with joy but alarm.

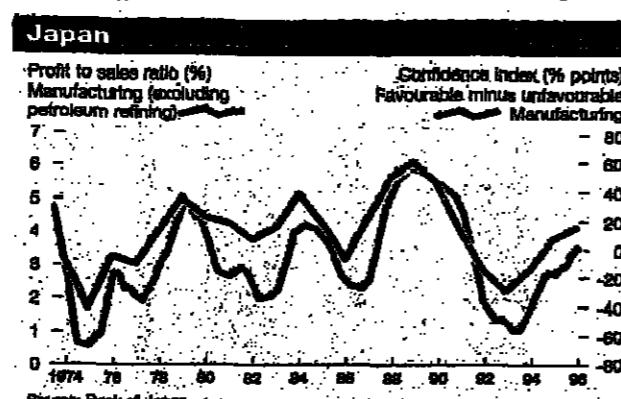
Bond and equity prices fell sharply as news leaked out on Friday morning that the Bank of Japan's latest Tankan quarterly corporate survey, the most authoritative guide to the short-term economic outlook, would show a greater than expected rise in business confidence.

In the event it did just that. A balance of minus 3 per cent of manufacturing companies surveyed said conditions are improving, the best score for four and a half years. That compares with the minus 5 per cent expected by the market. When last polled by the BOJ in February, a balance of minus 12 per cent said conditions were brighter.

Investors' alarm is rooted in the fear that the central bank might be prompted by signs of better times to advance the day when it will raise the official discount rate from the record low 0.5 per cent at which the BOJ has kept it since last September.

The worry is that premature tightening could easily choke Japan's gathering economy, and drive up the yen's value against the dollar, spreading instability across the world's financial markets. "Raise interest rates? The message from the market to the BOJ is: don't you dare," said one US economist as he took a break from the market turmoil for a quick beer and sushi.

A closer look at the BOJ's stance and at Japan's economic fundamentals does indeed suggest no real reason for panic. The BOJ was quick on Friday to argue that the survey result was only moderate, and to voice anxiety over the impact of the fall in world semiconductor prices on corporate profits. Senior private sector bankers think the BOJ is unlikely to rethink its monetary stance at least until the next Tankan in September and that it will tighten only if that survey proves the balance



between companies reporting good and bad conditions has clearly become positive, for the first time since 1981.

Certainly, the BOJ is not behaving as if it is about to raise interest rates, despite the cautionary hint from Mr Yasuo Matsushita, the governor, of the eventual need to tighten.

The bank is pumping cash into the economy, as measured by creation of new bank notes, at the fastest rate for six years.

It continues to guide the overnight rate at which commercial banks lend to each other, slightly below the ODR, an unusual tactic taken only when the need for loose monetary conditions is urgent. It is doing this not just to encourage manufacturers to borrow, but to help the weaker banks raise cash to clean up their balance sheets, one of the biggest unresolved questions over the recovery's sustainability.

For the moment, however, inflation is a remote prospect. Nearly two years of consumer price deflation came to an end at the start of 1995 and consumer prices are now rising at a mere 0.2 per cent, though wholesale prices continue to fall. But even so, that puts real overnight interest rates at less than 0.3 per cent, if consumer price data are to be trusted.

Thus, money has become one of the few commodities available almost free in what is otherwise one of the world's most expensive countries. In these conditions, argues Salomon's Mr Young, a rise in overnight rates might be sensible.

All this suggests the BOJ should be the last to be surprised by the extent of the business upturn. It did, after all, largely create it, argues Mr Richard Werner, chief economist at Jardine Fleming Securities in Tokyo.

Another reason for the BOJ to delay a rate rise is an imminent tightening in fiscal policy.

Last September's record Y14,220bn (\$130bn) public spending package is expected to be exhausted by the autumn. The finance ministry has hinted that there might be another, smaller package, to

Insurers paid \$130m to N Korea

By John Burton in Seoul

North Korea received \$130m in foreign insurance payments for 1994 crop damage, according to South Korean officials. The disclosure is an apparent effort to undermine international support to ease the North's present food shortage.

South Korea claimed there was no indication that Pyongyang had used the insurance money to buy food supplies from abroad in spite of growing grain shortages resulting from floods last summer.

The disclosure of payments by eight foreign companies came shortly after the United Nations asked member countries for \$43.6m for food aid to North Korea.

South Korean officials denied they were trying to spoil the UN humanitarian effort but added that the insurance payments could affect decisions on bilateral food aid to North Korea by Seoul and its US and Japanese allies.

South Korea strongly objected to offers of food aid to North Korea until Pyongyang agrees to accept four-party peace talks that would include the two Koreas, the US and China. Seoul has claimed that reports of starvation in North Korea are exaggerated and that food shipments from overseas are going to military forces rather than civilians.

Officials in Seoul named the companies that provided insurance payments to North Korea as Chiyoda, Liberty Mutual, Lloyd's, Generali Reinsurance, Aarchner Renk Nova, with Fenchurch International Reinsurance acting as broker.

North Korea signed an insurance agreement in 1992 that stipulated it would receive payments for 60 per cent of crops destroyed through natural causes.

The \$130m received relates to crops lost to cold weather in 1994. It is now negotiating compensation for crops destroyed by last summer's floods, according to Seoul officials.



Crowds cheer Ms Aung San Suu Kyi (inset), Burma's pro-democracy opposition leader, as she addressed them yesterday.

Ms Suu Kyi maintained a slightly softer tone than in previous speeches in her campaign for change but said that with the

support of the people, victory was inevitable. Reuter reports from Rangoon.

However, the ruling military government gave no indication it might open talks with the opposition, continuing verbal attacks on Ms Suu Kyi and her

National League for Democracy (NLD) party and warning it would not tolerate dissent. Ms Suu Kyi told the crowd of some 4,000 people lining the street outside her Rangoon home that, with their help, she was confident of success.

Indian PM raises prospect of high-level talks with Pakistan

By Farhan Bakhar in Islamabad and Mark Nicholson in New Delhi

Mr H.D. Deve Gowda, India's new prime minister, has raised the prospect of the first high-level talks between India and Pakistan for more than two years amid further signs from Islamabad of a possible advance in trade relations between the two frosty Asian neighbours.

The countries have fought three wars since partition in 1947, two over Kashmir, where low-level hostilities have continued since the early 1970s.

However, a further sign that Pakistan might be willing to work together with your government to address issues of mutual concern".

The letter follows remarks from Mr L.K. Gujral, India's foreign minister, promising that

New Delhi would offer a "helpful" reply to Ms Bhutto, who made an offer to resume talks in her letter. No date has been set for any such talks, likely at first to be at the level of senior officials.

Relations between the two countries have stagnated over the past two years, blighted by irreconciled differences over the disputed territory of Jammu and Kashmir.

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The letter follows remarks from Mr L.K. Gujral, India's foreign minister, promising that

The official, who requested anonymity, said: "If we decide to open trade with India, which some estimate could rise to an annual volume of Rs10bn (\$236m), the basis of our relationship may change". Analysts believe larger trade between the two countries could help underpin any resumed dialogue on vital security issues.

Indian officials have already welcomed hints of a trade opening as "encouraging and positive".

The official's remarks followed a statement by Mr Ahmed Mukhtar, the commerce minister, who told reporters on Saturday, that Pakistan had committed itself to granting a Most Favoured Nation trading status to India, but was still examining the impact of opening trade with its neighbour.

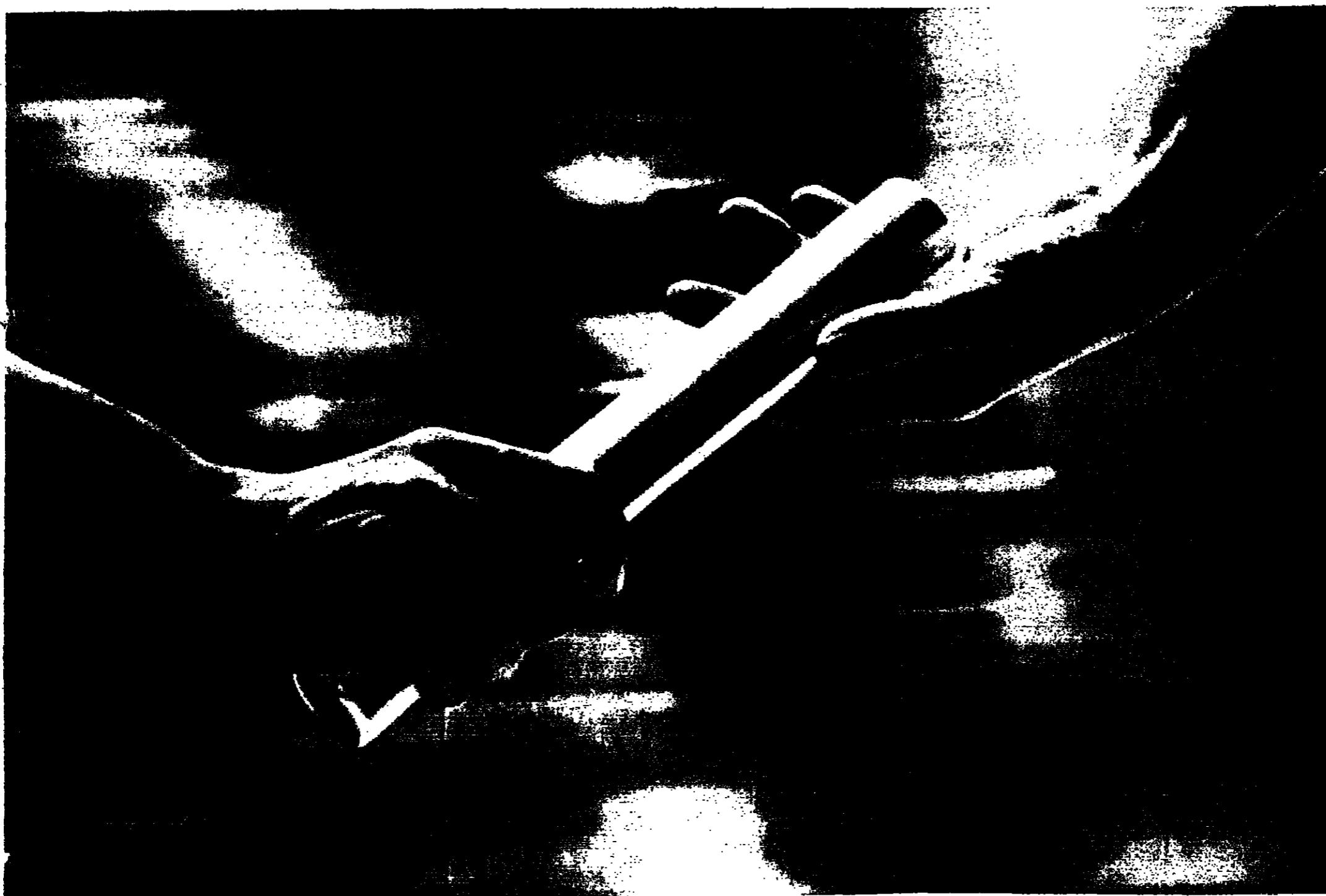
Mr Mukhtar told reporters at

a seminar: "We are carrying out studies in different sectors, the engineering sector, the agriculture sector, and then we have narrowed the sectors in which we play a very major role and once the report comes back on these studies, then we will be able to finally decide granting of this (MFN) status".

But Mr Mukhtar said Pakistan was concerned about India's non-tariff barriers and quota restrictions, an issue which would have to be resolved before Islamabad could make a final decision. He also downplayed fears that opening trade with India would jeopardise Pakistan's vital security interests.

Pakistani critics of the move have charged that Islamabad would increase its dependence on India by opening trade and would eventually be forced to compromise its claim on Kashmir.

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NEWS: INTERNATIONAL

World Bank agonises over debt relief

Robert Chote on efforts to speed help to poor countries under a multi-billion dollar initiative

The World Bank's executive board will today discuss how to speed up its assistance to poor countries under the multi-billion dollar debt relief initiative it is trying to assemble with the International Monetary Fund.

Several governments and aid agencies have criticised early proposals drawn up by the multilateral institutions, saying they demand an excessively long record of good behaviour before countries can become eligible for extra debt relief.

Bank staff will today propose accelerating their assistance under the initiative, but officials say the mooted changes will still not satisfy such countries as the US and UK that the bank - let alone the IMF - is doing enough.

The board meeting takes place against a background of continued disagreement between staff at the bank and the IMF as to how much the debt relief initiative will cost.

Rough estimates vary from \$5.6bn to \$7.7bn. Similarly, there is no consensus on how these costs should be shared between government, commercial and multilateral creditors.

At present the initiative demands an initial three-year record during which an eligible country would receive help from its creditors under existing terms.

A second three-year period would then follow, at the end of which the Paris Club of creditor governments would provide extra debt relief to a set limit beyond the present so-called "Naples terms".

The multilateral institutions would then provide relief on debts owed to them sufficient to reduce the country's overall debt burden to a sustainable level.

At today's meeting the bank will suggest bringing forward some of its proposed help into the second three-year stage.

World Bank staff propose that credits from the International Development Association (IDA), its soft-loan arm, should be used to ensure that there is a positive net transfer of resources from the bank to the country concerned throughout this period.

Because these credits might make the country's debt burden worse, IDA grants would be used simultaneously to ensure that its ratio of debt to

COSTS OF POOR COUNTRY DEBT INITIATIVE (US\$bn at 1996 net present value)

	50% debt relief by bilateral and commercial creditors	50% debt relief by bilateral and commercial creditors plus exports	50% debt relief by Paris Club
Bilateral and commercial creditors	3.8	2.4	3.8
Paris Club	2.0	1.9	2.1
Other governments	0.6	0.4	0.6
Other non-bank creditors	0.1	0.1	0.1
Multilateral creditors	2.0	3.2	3.9
World Bank	0.7	1.1	1.5
IMF	0.5	0.8	0.9
Others	0.8	1.3	1.5
Total	5.5	5.6	7.7

Source: IMF and World Bank calculations

exports did not increase.

Oxford International, the aid agency, said this represented "important progress" by the World Bank in addressing worries about the lengthy timeframe. It added that although the new proposals were welcome, it was still not clear why this would cost around \$5.6bn in net present value terms, with three-quarters of the costs falling in the period 2002-2003.

The distribution of these costs between the various creditors depends on how much assistance the Paris Club governments are prepared to provide.

As hosts, the French want development to be a keen

theme of the summit and they would dearly like to foster a breakthrough on the debt initiative.

Officials also hope that the summit may help resolve how the IMF should pay for its contribution to the initiative. Mr Helmut Kohl, the German chancellor, will come under pressure from the UK, US and France to relax his country's resistance to the sale and reinvestment of part of the IMF's \$40bn gold reserves.

Some officials believe the IMF is also deliberately trying to minimise its financial commitment to the debt initiative by insisting on unrealistically optimistic assumptions for poor country exports in the costing exercise.

The baseline costings assume that poor country exports grow by 6.5 per cent a year between now and the end of the decade, almost double the 3.3 per cent recorded in the early 1990s.

Some officials, especially in the World Bank, think export growth will be at least 2 percentage points lower. They estimate that this would raise the cost of the debt initiative from \$5.6bn to \$7.7bn.

INTERNATIONAL NEWS DIGEST

Call to break up Ontario Hydro

Ontario Hydro, North America's biggest electric power utility, should be broken up and private investment encouraged in its non-nuclear stations, according to a report by Mr Donald Macdonald, a former Canadian finance and energy minister.

A third of Ontario Hydro's power plants should be sold but the five nuclear stations and the Niagara Falls hydro plant should remain publicly owned, the report said. This would mean that 31 per cent of the generating system would be privatised. Total capacity now is more than 30,000MW.

The report, sponsored by the Ontario government, said the distribution system throughout Canada's biggest province should be made competitive. Independent power producers from other parts of Canada and the US should compete in the Ontario market.

Mr Macdonald said Ontario Hydro's 90-year-old monopoly had proved a "disaster" and no longer had any economic justification. Opening up the market would lead to lower rates and a reduction in the utility's long-term debt, now well over C\$30bn (US\$21.8bn).

Ontario Hydro, which has assets of C\$43bn, generates 94 per cent of the province's power and distributes it to 10 municipalities. Even a partial sell-off is likely to prove controversial. Polls have shown that 66 per cent of the population oppose privatisation. Robert Gibbons, Montreal

Taiwan cabinet cheers business
Taiwan's new cabinet, announced on Saturday, has prompted favourable reaction in the local business community. Mr P.K. Chuang, former minister of economic affairs, has been appointed to head the Council for Economic Planning and Development, the highest economics-related policy-making body. His old job has been filled by Mr Wang Chih-kang, an academic specialist in marketing and management, previously in charge of the Fair Trade Commission, while Mr Paul Chin, former Central Bank of China deputy governor, has been appointed minister of finance.

A local business leader said: "These three have a good relationship with businessmen and understand their problems." The men are part of a cabinet selected, according to premier Lien Chan, with the specific aim of raising Taiwan's competitiveness so that it ranks among the world's top five nations.

Muted protest over China blast
China yesterday faced only muted condemnation of its latest nuclear test, apparently heading off criticism by its promise to end all testing after just one more explosion this year. There were no threats of retaliatory action such as trade sanctions in the international protests issued after Saturday's blast, and only minor street demonstrations were reported around the world.

The reaction contrasted sharply with the outraged protests which greeted previous Chinese tests and last year's series of nuclear blasts carried out by France.

In announcing the latest test, China said it would detonate another nuclear device before September, after which it would exercise a moratorium on nuclear testing. Reuter, Tokyo

■ China yesterday released Mr Ren Wanding, veteran dissident, after seven years in prison for his role in 1989 pro-democracy demonstrations, but promptly whisked him away to an undisclosed location in northern China.

Mr Ren was jailed for accusing Beijing of human rights abuses and urging freedom for political prisoners during the student-led demonstrations which were crushed by the army on June 4, 1989.

He was one of the founders of the China Human Rights League in 1978. The group folded a few months later after police arrested most of its members. Reuter, Beijing

Iraq oil minister in Paris talks

General Amer Rasheed, Iraqi oil minister, today holds talks with French officials and senior French business leaders. Gen Rasheed arrived in Paris on Saturday on his first visit to France.

Paris has supported a lifting of the oil export ban on Iraq imposed after the Gulf war. The UN Security Council agreed last month to allow limited exports to pay for food and medicine. In Vienna on Friday the Organisation of Petroleum Exporting Countries (Opec) agreed to allow Iraq to export 800,000 barrels a day.

Tomorrow Gen Rasheed is scheduled to attend a meeting of French business leaders organised by the CNPF, the employers' organisation. Several French companies are interested in investing in Iraq, and Baghdad is in talks with the oil companies Total and Elf on exploiting Iraqi oilfields.

APP, Paris

Team tackles germ warfare site

A United Nations germ warfare team is dismantling Iraq's main biological weapons site, a senior UN arms official said yesterday. "We are destroying the al-Hakam in the same manner as Muthana [a chemical weapons site] was destroyed," said Mr Goran Wallen.

Mr Wallen said the scrapping of al-Hakam would rid Iraq of equipment that could enable it to engage again in germ warfare. The site, 80km south of Baghdad, escaped allied bombing during the 1991 Gulf war that ended Iraq's seven-month occupation of Kuwait. Under the Gulf war ceasefire terms, Iraq is to be stripped of weapons of mass destruction and the means to produce them. As the UN team destroyed the site, another team began arriving in Baghdad to rid Iraq of other banned weapons.

Reuter, Baghdad

ILO steps up efforts to end child labour abuses

By Frances Williams in Geneva

The International Labour Organisation is stepping up its campaign against child labour with a call to action by member countries to eliminate the most damaging forms such as forced or slave labour, work with dangerous chemicals and child prostitution.

In a report published today, the ILO estimates that some 73m children aged 10-14 years are employed worldwide, more than 13 per cent of the age-group. In Africa a quarter of 10-14 year-olds are in work.

The ILO says that including younger children in work, where no reliable figures are available, and girls working full-time at home, the total number of child workers around the world today might well be in the hundreds of millions.

The organisation now plans a new convention focusing on the worst abuses - though, under the ILO's state procedures for agreeing labour standards, it will

not be ready until 1999.

The extent of child labour has grown in Africa and Latin America in recent years, though it is declining in Asia, especially south-east Asia. There has also been an increase in central and eastern Europe and the US, according to the ILO, which links the trend with economic insecurity and more flexible work practices.

Despite a rise in working children in the world's cities, nine out of 10 children work in agriculture or linked activities in rural areas and most children are employed within the family rather than working for outside employers, the report notes.

Child labour: What is to be done? Available from ILO Publications, CH-1211 Geneva 22

Peru's small investors given sell-off call

Good local demand is vital in privatisation of Telefónica del Perú, writes Sally Bowen

60,000-80,000 citizens. The typical small investor will be a semi-skilled manual labourer who can afford to save some \$11.50 a month.

"That may not sound much, but it's a highly valuable start to creating a culture of domestic savings; it's what the government is aiming at," says Mr Alvarez.

Telefónica shares are already widely traded in Lima. Although the company has come in for much criticism in the past two years for the disruption caused by upgrading services and inevitable price rises, it is perceived as solid and profitable.

Although recent investment has been staggering by Peruvian standards, unsatisfied demand remains high. If Peru's gross domestic product expands by 6 per cent a year between 1997 and 2000 - as the government expects - the number of lines could triple to 14 per 100 people, says Telefónica officials.

Assuming the Telefónica initiative is successful, the citizen participation mechanism will be repeated with the sale of stakes in other part-privatised companies, notably Lima's electricity distribution companies and Banco Continental.

From Hollywood 'extra' to a master of illusion

OBITUARY: MAX FACTOR

Sheikh Isa bin Sulman al-Khalifa, the emir of Bahrain, yesterday said an alleged pro-Iranian plot to topple his government was also aimed against other countries in the region.

In an interview with Kuwait's al-Seyassah newspaper, Sheikh Isa accused Iran of backing a terrorist plot against Bahrain, adding that Tehran was planning to use Bahrain as a "transit" point for the region.

Last week Bahrain said it had foiled a plot to topple the government by armed revolution and install a pro-Iranian regime. It withdrew its ambassador from Tehran and downgraded diplomatic relations to a "transit" point for the region.

Sheikh Isa denied meddling in Bahrain, where members of

the island state's Shia majority had waged an 18-month campaign of bombing, arson and sabotage against the government. At least 25 people have died in the unrest.

Senior diplomats and businessmen remain unconvinced by the government's latest efforts to lay blame on Iran for the unrest. "It is good theatre and the government's side of the story makes good reading," said one diplomat.

"For many Bahrainis this is itself gives the government some credibility." But "demographics, domestic poverty and lack of job opportunities for many young Bahrainis tell a different story."

The arson and bombing campaign has dented business confidence. Average occupancy rates in many of Bahrain's five-star hotels, two of which have suffered bomb attacks, have stayed below 20 per cent.

There is also a notable

absence of Saudis, thousands of whom normally cross into Bahrain to take advantage of the state's liberal drinking laws.

The Saudi presence is felt in other ways. From April 1 Riyadh increased Bahrain's annual income by more than \$300m by allocating to it all Saudi Arabia's share of revenue from the Abu Saafa oil field. The extra \$200m will cover last year's estimated budget deficit.

But there is a price to pay. The subsidy has reinforced Riyadh's political control over Bahrain, which businessmen already believe is considered as Saudi Arabia's 15th province.

"It will only get worse unless the government either departs its disaffected citizens en masse, which would cause a regional crisis of confidence, or addresses poverty and unemployment among thousands of its nationals."

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NEWS: WORLD TRADE

Contractors eye shifting sands of Gulf states' defence needs

Bernard Gray sees renewed interest in buying military hardware

Last week's leak that British Aerospace was to win a \$100m contract to supply Kuwait with anti-ship missiles was the first sign that arms sales to the Gulf are starting to pick up.

Arms makers, who have always had to live with feast and famine in the Gulf, have been going through a particularly lean patch.

Following the end of the Gulf war, a grateful Kuwait and Saudi Arabia placed huge contracts with western arms makers.

Saudi Arabia alone bought 72 more F-15 fighters from McDonnell Douglas in the US, worth over \$5bn, 48 Tornado bombers from BAe for over \$2bn, as well as US Abrams tanks and a host of other equipment.

Kuwait diplomatically bought substantial amounts of US aircraft, French warships and British armoured fighting vehicles. But the cost of paying for the war and subsequent rearmament coincided with a sharp downturn in the oil price and many Gulf states started to run up large budget deficits. Once the necessary gratitude to western powers had been shown, arms sales dried up.

Now, however, twin forces are beginning to encourage renewed interest in military hardware. Gently rising oil prices and firm world demand have started to reduce, if not eliminate, government budget deficits. At the same time nervousness about Iran is increasing.

For all his history of starting conflicts, Iraq's Saddam Hussein is largely seen as a known and constrained quantity in the foreseeable future.

Iran is regarded very differently. Members of the Gulf Co-operation Council are concerned about the developing relationship between Russia and Iran, and the technologies which Russia could export to the fundamentalist state.

Russia, desperate for arms exports, has missile, fighter aircraft and nuclear technology which the Gulf states all fear.

In the front line of this potential confrontation is the United Arab Emirates. It has been looking for around 80 advanced combat jets, an order so large it has western defence companies drooling. The rich but small Gulf state is easily able to afford the \$8bn to \$9bn initial price tag, as well as the substantial running costs, but the UAE has been reluctant to commit itself.

This is partly because none of the aircraft on offer exactly meets its needs, and partly because the aim of



FIGHTING FOR SALES: Dassault's Rafale fighter (top left), and Mirage 2000-5 (top right) and the McDonnell Douglas F-15 compete for air space in the Gulf. On the ground the French Leclerc battle tank (bottom left) is pitted against the UK's Challenger II

the exercise is political. By bestowing huge contracts on western companies, the UAE hopes to tie western governments to come to its aid if trouble erupts.

Significantly, any country

which wants to win the contract is being required to sign an armistice co-operation agreements.

The leading US aircraft contender is the heavyweight F-16 fighter. However, even this powerful jet has a number of drawbacks.

It lacks the range to strike at sites around Teheran without refuelling, and is unlikely to be supplied in a form which would allow it to carry long-range cruise missiles capable of destroying airfields or missile sites.

The lighter Lockheed F-16 would be useful for defending UAE airspace, but lacks the punch for heavy ground attack.

France seems well placed, at least because its Mirage jets are already in service with the Emirates air force.

France is also offering the UAE a version of its Apache cruise missile which could be fitted to the Dassault jets. However, the existing Mirage family is ageing, while the latest generation Rafale is not yet in service with the French air force for several years, and the UAE may be reluctant to become the first customer for a new aircraft type.

Britain has offered a new version of its BAe Tornado GR4 bomber, which could strike at airfields from long range.

ranges, but the Emirates seem reluctant to take a smaller number of Tornados for the strike role and F-16s for air defence because of the high costs of maintaining many aircraft types.

Rumours swirl about when the UAE will decide. Some argue an order is imminent, and others say a decision will

be delayed until aircraft such as the four-nation Eurofighter become available. In practice, the timing is likely to be decided by which country is prepared to offer the UAE the cruise missile technology it wants at a price it is prepared to pay.

Saudi Arabia is also looking at two large arms purchases. It will need to replace its Grumman F-5 light fighters in the next few years, and is also looking to add another armoured brigade to its ground forces.

Of the two, the ground forces order is closer, with a competition being held in the sweltering heat of the Saudi desert this August.

The prize is an order to provide tanks and armoured fighting vehicles in an order which could be worth \$2bn to \$3bn.

In contention are the US Abrams tank already in service with the Saudi army, the French Leclerc tank, which was bought by the UAE, and Britain's Challenger II, which

has been selected by Oman.

Saudi Arabia has often tried to maintain two suppliers for its military equipment, partly to maintain competition, and partly to give it several diplomatic ties to the west.

This tends to argue in favour of the Leclerc or the Challenger, but does not rule out the Abrams which would have

the benefit of commonality with the rest of the Saudi army. Given the testing problems Saudi Arabia has experienced with its current Abrams tanks, however, performance in the desert trials will be very important.

Britain has suffered in Saudi Arabia because of the dispute over the dissident Mohammed al-Masoudi. However, the situation does seem to be improving slowly, and the Challenger has not been ruled out.

The Saudi light fighter order is less well advanced, but

seems to boil down to a choice between the F-16 and the Rafale Hawk with the F-16 the more likely choice.

Beyond these two large deals, the kingdom also has an interest in acquiring ballistic missile defences against Scud attacks, more minesweepers and anti-submarine hunting helicopters to detect the Iranian Kilo submarines supplied by Russia.

However, the course of future Saudi orders may depend on how the succession to King Fahd is resolved.

Other Gulf states such as Qatar and Oman also have smaller defence requirements, but seem in no rush to buy. How the succession issues are played out in the large Gulf states, and the diplomatic and defence leavings which follow change, are likely to be their guiding light.

For their part, western arms salesmen accept that while the Gulf has often been fertile ground for military sales, it is a region built on permanently shifting political sands.

That makes it increasingly difficult to predict future sales, and harder still to bank them.

Notion of collective defence still a mirage

Robin Allen finds that historical animosities and concern for sovereignty hinder standardisation

Damping the prospect of Gulf states spending an estimated \$80bn on new equipment between now and 2000 are the problems they have absorbing their existing array of weaponry.

Notions of "national independence" among the six ruling families have resulted in their armed forces being equipped with a goulash of weapons, new and old, from many different countries.

The overriding concern for sovereignty effectively quashed ideas for the "standardisation" of equipment, and "inter-operability" of command and control structures for the greater benefit of collective Gulf defence.

On a political level, Gulf states do not share a common strategy for collective defence. Historical animosities and divergent political priorities ensure they do not agree on the nature and direction of an external military threat.

This disparity of views has hampered US efforts to convince the Gulf states of the military threat from Iran, particularly through its acquisition of conventional diesel and frigate submarines, as well as missiles, and its perceived ambitions to develop nuclear and other weapons of mass destruction.

Unlike the US, Gulf rulers believe in the adage "to name an enemy is to make one". They regularly deplore Iran's occupation of Gulf islands

claimed by the UAE, but stop short there.

Without a common defence strategy, Gulf states are free to pursue their individual preferences for "the latest and the best", as one diplomat put it.

Among the big spenders, only Abu Dhabi has a sufficiently large cushion of capital that it can comfortably afford a \$8bn-\$9bn price tag for new aircraft. But other difficulties await defence contractors in Abu Dhabi.

"The Abu Dhabians are masters of the art of keeping

disparity of views hampers US efforts to convince the Gulf states of the military threat from Iran

defence contractors on tenterhooks," said one senior diplomat.

They are tough negotiators and very secretive. They announce bid deadlines and watch with wry amusement as western suppliers set more and more tricky. Then the deadline passes, and they announce another deadline. This is all part of the game."

Contenders for Abu Dhabi defence contracts - including Russia, "which should not be

written off", one senior diplomat commented - have had problems satisfying Abu Dhabi's 60 per cent offset requirements.

These, according to industry sources, are so far beyond Abu Dhabi's capacity to absorb that only one serious offset deal has been signed in six years. This lone deal beat all records by being awarded before the main defence contract on which offsets, by definition, are supposed to hang.

Both Kuwait and Saudi Arabia face budget and other constraints. Senior diplomats in both countries warn that the days of free spending are over, unless and until oil prices, on which both countries count for more than 75 per cent of their annual revenue, substantially recover.

No big defence orders are expected this year, when general elections are due to be held for Kuwait's national assembly.

In addition, Kuwait's armed forces "have manpower problems and are struggling to integrate billions of dollars of new weapons," according to senior diplomats.

Saudi Arabia has cut this year's defence and security spending by almost 9 per cent to some \$15bn following 13 consecutive years of budget deficits. The Saudi armed forces are also having enough difficulties "digesting" tanks, aircraft and armoured personnel carriers already delivered.

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Indonesia, BP reach project accord

By Manuela Saragosa in Jakarta

The future of a controversial Indonesian petrochemicals project appears secure following the weekend signing of a sales agreement with an Indonesian unit of British Petroleum.

Chandra Asri Petrochemical Complex, controlled by the president's second son, Mr Bambang Trihatmodjo, and a number of prominent Indonesian businessmen, received effective tariff protection of 25 per cent for its two main products - ethylene and propylene - last February, a move that surprised and angered many.

Economic protection for the plant has been a controversial topic for the past two years, emerging as a test case for Indonesia's apparent commitment to free trade.

The tariff protection was believed to be tailored to force a British Petroleum unit, Petrokimia Nusantara Indo (Peni), which manufactures polyethylene, to conclude a sales agreement for ethylene with Chandra Asri.

It was clear from the start that Chandra Asri, which has substantial loans from the state-owned Bank Bumi Daya, would need some form of subsidy to be commercially viable.

Under the five-year pricing structure agreed between the two parties, Peni will be paying a premium for the ethylene it buys from Chandra Asri "under certain conditions".

However, Peni officials maintain they are comfortable with this because the government will maintain a 40 per cent import tariff on polyethylene which will protect Peni's profit margins.

"We believe we have achieved a win-win agreement which will help clear the way for further development of the petrochemicals industry in Indonesia," said Mr Jim Hay, president director of Peni.

Chandra Asri will supply about half of Peni's ethylene needs, which will allow Chandra Asri to operate its ethylene cracker at about 85 per cent capacity, the minimum to make it commercially viable.

The remainder of Peni's ethylene requirements will be bought at market prices from two of its other shareholders, Japan's Mitsui and Sumitomo.

WORLD TRADE NEWS DIGEST

Taiwan to lift China ban

Taiwan will lift its ban on investment in China's securities and futures markets as of July 1, the Ministry of Economic Affairs announced at the weekend.

Officials at the ministry's investment commission said Taiwanese companies handling securities and futures investment would be allowed to set up offices in China to provide trading, consulting and securities services.

The new minister of economic affairs, Mr Wang Chih-kang, said banks would also be allowed to establish offices in China "soon". Plans to lift a ban on investment in department and convenience stores are at present awaiting Mr Wang's approval.

The investment commission also plans to lift restrictions on investment in the manufacture of 451 items, which will allow Taiwan investors to make such goods as projectors, dehumidifiers and lifts in China.

Lawrence Eytton, Taipei

Fast food for Vietnamese

US-based fast food group Kentucky Fried Chicken (KFC) is to open an outlet in Vietnam's industrial capital, Ho Chi Minh City - becoming the first big US fast food brand to open in the country since the end of the Vietnam war, the semi-official weekly Vietnam Investment Review said yesterday.

Hester Thev, country manager for Thailand, Burma and Indochina for PepsiCo, KFC's parent, said the company had a verbal agreement to open up in Saigon Superbow, a Singapore-invested leisure complex near the city's airport.

Last week, 32 lanes of bowling opened at the facility - aimed at the growing middle class in Ho Chi Minh City - and a full opening is due in September.

Earlier this year, another smaller fast food chain, Texas Chicken, opened in the city, where similar establishments run by Vietnamese and Thai companies have been popular in the last two years.

Although the Americans were forced out of Saigon in 1975, a few signs of the US presence remain, from the battered 1970s Chevrolet van used as delivery trucks to the baseball caps worn by many residents.

Jeremy Grant, Hanoi

Crackdown on disc pirates

China yesterday trumpeted the closure of four illegal video and laser disc assembly lines - ahead of a new round of copyright talks with the US aimed at averting a looming trade war over piracy.

Public security officers in southern Guangdong province detained 11 suspects, closed down three illegal video compact disc assembly lines and seized more than 40,000 video discs in one raid on May 30, the official Xinhua news agency reported.

Police raided another video and laser disc plant in Guangdong's Guizhou town last week for illegally processing and packaging 110,000 video and laser discs, Xinhua said.

Washington and Beijing have announced tit-for-tat sanctions effective from June 17 if the two sides fail to agree on US demands for the closure of all Chinese businesses producing, selling or enforcing pirated music, compact discs and software. Assistant US Trade Representative Lee Sands ended two days of talks in Beijing on Friday without a deal to avert a trade war, but US officials said a new round of formal discussions would be held this week.

Reuter, Beijing

C-MAC, the Canadian electronics group, has won a contract worth more than C\$1bn (US\$83m) to manufacture 240,000 desktop cellular telephones for Israel's Telrad Telecommunications.

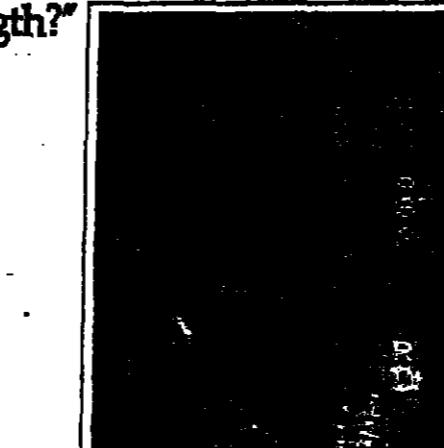
Telrad is already a customer for C-MAC's interconnect equipment and circuitry.

Robert Gibbons, Montreal

PZL-Swidnik, Poland's light and medium helicopter builder, will power its new Sokol multi-purpose twin-engined machine with Pratt & Whitney Canada's PW6C-65 turboshaft engines. The Sokol won US certification in 1993 and is sold internationally.

Robert Gibbons

"Do DSM's annual results reflect its growing competitive strength?"



"They certainly do. And the completion of the privatisation has also increased the company's shareholder value."

DSM's 1995 Annual Report reveals an excellent year. A year in which the company proved that it was on the right track with a strategy aimed at growth and competitive strength. The conversion of a large percentage of the State-held shares into cumulative preference shares was in the interest of the Dutch state, the shareholders and DSM alike. DSM's strategy concentrates on the expansion of its existing strong positions and strong growth in fine chemicals and performance materials. This strategy started to bear fruit in 1995. In addition, a return on investment of on average 15% over the last ten years is evidence of the company's sound basis. If you would like further information about the developments at DSM, please contact us. We will be happy to send you a copy of the 1995 Annual Report.

DSM 
Chemicals & Materials

NEWS: UK

US regulators lobby for special terms

By Ralph Atkins,
Insurance Correspondent

US state securities regulators are lobbying for special terms for Lloyd's of London Names in America as part of the insurance market's out-of-court settlement offer to lossmaking and litigating members.

The regulators are putting pressure on Lloyd's in negotiations over legal actions alleging that investment in the insurance market was mis-sold.

Mr Philip Feigin, who is co-ordinating the securities regulators, said US Names were "a different class" and any deal with Lloyd's in the US should reflect the "additional legal protections that are not available in other parts of the world".

His comments highlight the difficulties Lloyd's continues to face in the US despite growing support in the UK for the recovery plan of which the settlement offer, worth £21bn (£4.7bn) is part. Lloyd's fears

that if assets held in the US are frozen, the recovery plan could be undermined. Without the plan's implementation on schedule this August, Lloyd's future

ket, including by the securities regulators, resolved by August. Securities regulators in 11 states have filed actions against Lloyd's, although one in California, has been dismissed.

As part of a "standstill" deal, Lloyd's has agreed to give two weeks' notice of any moves to draw down on US Names' letters of credit. In the meantime, regulators have allowed Lloyd's to communicate with the 3,000 US Names about the legal action against the mar-

ket executive, suggests the Equitas "premium" has fallen from about £1bn to about £900m or less. Equitas is a giant reinsurance company that Lloyd's plans to take over responsibility for billions of pounds of mainly US asbestos and pollution related liabilities.

EU members find ways around beef veto strategy

By Neil Buckley in Brussels

The UK will today resume its campaign of disruption of European Union business in protest over the beef exports ban, amid signs that other member states are increasingly finding ways of skirting around UK blocks and pressing on with important initiatives.

Mr Malcolm Rifkind, UK foreign secretary, will veto several decisions at a foreign ministers' meeting in Luxembourg today - but not an association agreement with Slovenia, which the UK pledged last week to support. Lord Inglewood, national heritage minister, will block four decisions since the EU and Algeria, EU funds for elections in former Yugoslavia, agreement on relations with Canada; and the mandate for a co-operation council meeting between the EU and Syria tomorrow.

The Commission will today attempt to rebuild confidence in EU beef among countries outside the Union. Mr Franz Fischler, agriculture minister, has invited 68 non-EU countries to an information seminar on BSE in Brussels, where he will tell them there is no case to restrict imports of EU beef, given the continued ban on exports from the UK.

Similarly, officials said that while a release of Ecu3m (\$3.72m) from the European Commission to support elections in former Yugoslavia might be blocked, member states would continue to contribute individually.

Work on a framework for progressive lifting of the ban will continue this week, through bilateral meetings between officials from the UK and other member states, and with the Commission.

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fied majority rather than unanimous votes.

Mr Rifkind will again set out the reasons for the UK disruption policy, and action the UK is taking to eradicate BSE, or mad cow disease. He is then expected to block measures including a mandate for negotiating an agreement between the EU and Algeria, EU funds for elections in former Yugoslavia, agreement on relations with Canada; and the mandate for a co-operation council meeting between the EU and Syria tomorrow.

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Fishermen fight fleet capacity cuts

By Deborah Hargreaves

British fishermen are digging their heels in for a lengthy fight over the 40 per cent cut in fleet capacity proposed by Mrs Emma Bonino, European Union fisheries commissioner.

Work on a framework for progressive lifting of the ban will continue this week, through bilateral meetings between officials from the UK and other member states, and with the Commission.

The plan to slash EU fleets over the next six years will be discussed today at a meeting of fisheries ministers in Luxembourg where Mr Tony Baldry, Britain's representative, will also oppose the plan.

British fishermen blame foreign boat-owners - so-called quota hoppers - for their inability to meet capacity reduction targets. These, mainly Spanish and Dutch, fishermen buy up British licences to gain access to national fish quotas. They represent around 18 per cent of the UK's fishing capacity.

of British capacity," he said. This is because the average age of British boats is 25 years whereas Spain has invested a lot of money in upgrading and improving the efficiency of its fleet in recent years.

Britain has failed to meet previous targets for reducing fishing capacity and Mrs Bonino has threatened the government with action in the European Court. The UK should have cut its fleet by 18 per cent since 1992, but has achieved only a 7 per cent decrease.

British fishermen blame foreign boat-owners - so-called quota hoppers - for their inability to meet capacity reduction targets. These, mainly Spanish and Dutch, fishermen buy up British licences to gain access to national fish quotas. They represent around 18 per cent of the UK's fishing capacity.

British Energy set to announce big dividends

By Patrick Harverson in London

Today's publication of the pathfinder prospectus for British Energy will reveal that the nuclear generator plans to pay just under £100m (\$152m) in dividends this year, about double its expected profits.

The substantial dividend - which will be possible despite forecasts that first-year profits will be less than £50m because British Energy has strong cash flow - is a key element of the government's marketing strategy.

It is spending £1m on an advertising campaign to sell a privatisation that is regarded as the most complicated and troublesome the government has attempted because of the controversial nature of the nuclear energy business.

However, British Energy will warn potential investors in the prospectus that its intention to pursue a progressive dividend policy of increasing the payment in real terms every year could be abandoned if wholesale prices in the nation's electricity "pool" fall by more than 5 per cent.

Although the company believes pool prices are unlikely to fall that far, most analysts expect competition in the deregulated power generation market to drive electricity prices down from 2.4p a kilowatt hour to 2p/kWh over the next two years.

The announcement of the company's dividend today will allow analysts to put a reliable value on the business. With BZW and Cazenove, the company's stockbrokers, predicting that the shares will yield about 7.5 per cent in the first year, the group will be valued

on its flotation at about £1.67bn. When British Energy's debts are included, the total proceeds to the government from the sale will be well over £2bn. The company had debts of £700m at the end of its last financial year on March 31, but strong cash flows have since cut that figure by about a third. The business generates a lot of cash because of its low running costs, the fact that the company's plant is always running, and because the start of the latest financial year was colder than normal.

The channel is now close to break-even. But News Corporation is angry at personal remarks made by Bertelsmann staff last week criticising Mr Murdoch's impatient style of doing business. The effective break up of the BSkyB, Canal Plus and Bertelsmann "grand alliance" last week clears the way for the Kirch Group to launch digital television first into the German market later this year.

Satellite rugby deal stirs debate over rights

By Raymond Snoddy

British Sky Broadcasting, the satellite television venture, will announce today that it has won the right to broadcast all rugby union games played at Twickenham, the main stadium for English rugby, in a five-year deal worth £75m (\$114m).

The deal - with the English Rugby Union - comes only three days after the satellite company clinched a new deal with the English soccer's Premier League worth £67m. It will give BSkyB a lockhold on English rugby, traditionally the province of the BBC. It is not yet clear how the four other rugby unions in the Five Nations Championship will respond.

At the very least BSkyB - in which Mr Rupert Murdoch's News Corporation has a 40 per cent stake - will have a powerful position in the European game. BSkyB has already bought up rugby union rights in the southern hemisphere. The rugby deal, coming so soon after the Premier League deal is likely to increase the controversy about BSkyB's growing dominance in exclusive sports rights in the UK.

British fishermen blame foreign boat-owners - so-called quota hoppers - for their inability to meet capacity reduction targets. These, mainly Spanish and Dutch, fishermen buy up British licences to gain access to national fish quotas. They represent around 18 per cent of the UK's fishing capacity.

Problems centre on the readiness of the government to meet the financial liabilities of health service trusts to PFI contractors if a trust defaults. The latest controversy goes to the heart of the government's reforms of the health service, which to promote an internal market within the NHS gave nearly 500 local trusts an arm's length financial relationship with the government.

UK NEWS DIGEST

Swedes plan to triple investment

Sandvik of Sweden, one of Europe's biggest engineering companies, is tripling its investment programme in Britain in a project that will mainly benefit its factories in the English Midlands and Yorkshire. The company is planning to spend about £28m (\$37.5m) on plant and machinery in its eight UK factories in the three years to the end of 1997. The programme aims to build on the commercial performance of Sandvik's plants over the past few years, according to Mr David Shall, managing director of the company's UK subsidiary. He said Britain's manufacturing role within the Sandvik group was "on an upward path and accelerating", built on factors such as increasing competitiveness of UK industry and "an enthusiasm by the workforce to embrace new technology".

Sandvik, with worldwide sales last year of £3bn, is among Europe's top 20 engineering companies ranked by revenues. It makes a range of special steels and other materials, together with finished tooling systems used in industries including automotive, aerospace and chemicals. Peter Marsh, London

Hospital projects under threat

More than £1bn of investment in new hospitals is in jeopardy because of continuing City concerns about the viability of the government's Private Finance Initiative.

At least four leading banks deeply involved with PFI have told the Treasury that uncertainty about the financial liabilities of National Health Service trusts remains too great for them to lend to hospital projects. Several large NHS contracts at an advanced stage of tender negotiations are believed to be under threat.

Only last month Mr Stephen Dorrell, the health secretary, rushed emergency legislation through parliament in a bid to meet City concerns. Without PFI, there will be virtually no early investment in new hospitals. The latest difficulties for the PFI, the government's flagship policy for boosting the role of the private sector in public investment, may become a severe embarrassment to ministers.

Problems centre on the readiness of the government to meet the financial liabilities of health service trusts to PFI contractors if a trust defaults. The latest controversy goes to the heart of the government's reforms of the health service, which to promote an internal market within the NHS gave nearly 500 local trusts an arm's length financial relationship with the government.

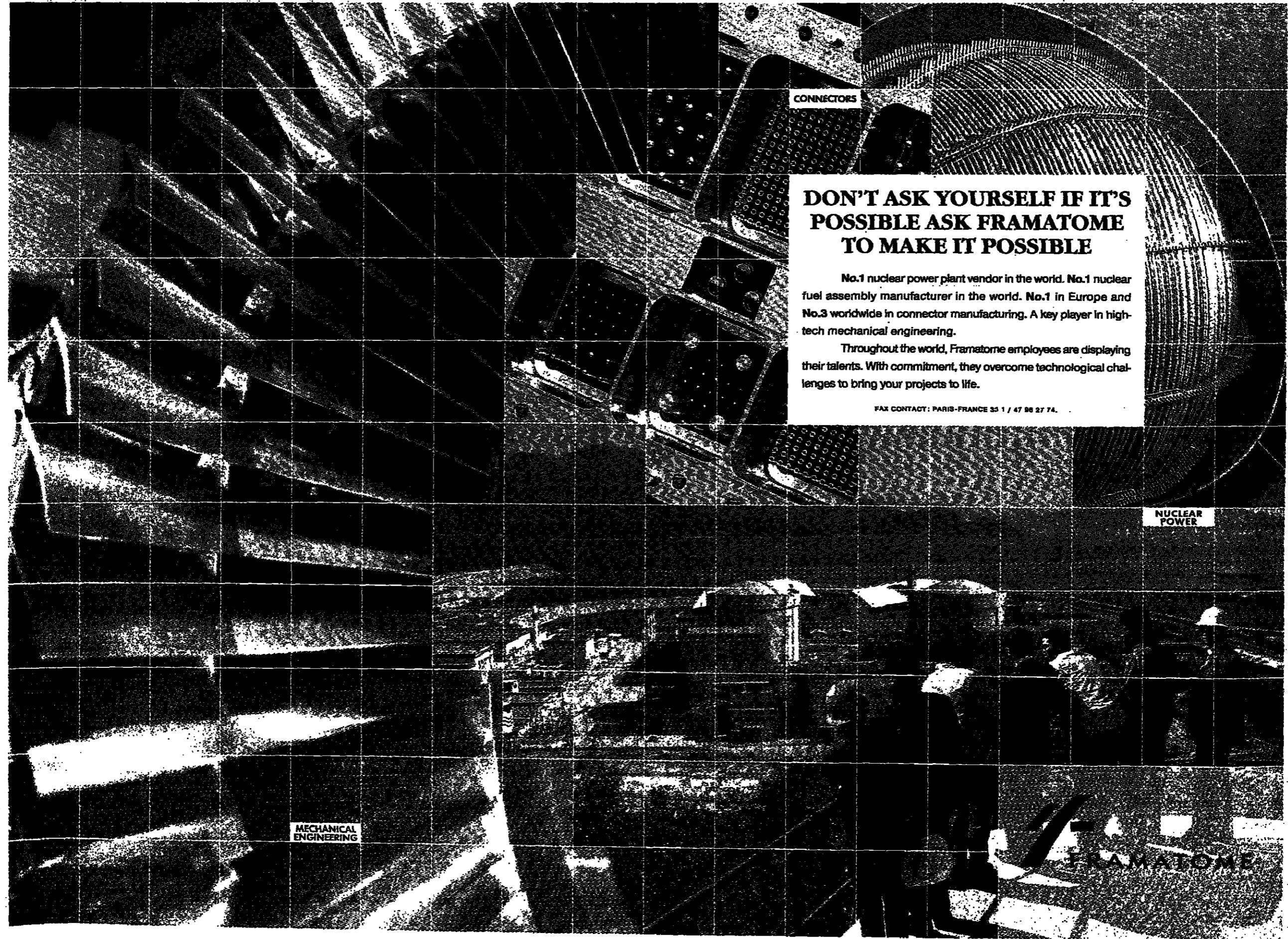
Andrew Adonis, Public Policy Editor

Social security opt-out suggested

People should be allowed to opt out of the National Insurance system, the state social security scheme, and make contributions directly to a personal "fortune account" which would pay out pensions and other benefits when needed, according to a study published today by the Adam Smith Institute. The rightwing think-tank says that the government's unfunded liabilities on health and pensions alone currently amount to more than £23,000bn (\$31,800bn) and the existing system is unsustainable.

It says that the fortune account would be independently managed by competing financial institutions and would provide for fully funded pensions as well as providing a package of basic insurance to replace other benefits such as unemployment and disability payments.

According to Dr Madsen Pirie, Institute president, transfer costs could be handled by giving people "recognition bonds" for previous contributions to the state system, payable when they retire. "What all politicians are seeking is a simple and funded system with positive benefits, inexpensive to run, giving greater benefits at lower cost," he said. "I believe the Fortune Account is that package." Mark Suzman, London



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Technically speaking, spying is banned in Japan, whose pacifist constitution outlaws violations of the "secrecy of communication".

Yet in intelligence matters as in Japanese life in general, there is more than one layer of reality. This can be explained by the difference between *tatemae* - roughly speaking, the public version of events - and *hone* - home truth.

The contrast between *tatemae* and *hone* was thrown into relief recently when parliament approved the creation of the first unified military intelligence headquarters since the war. The HQ will open on the central Tokyo site of the former Imperial Army HQ early next year and will keep watch for potential flashpoints in "surrounding regions". It will also supply intelligence on world hot-spots where Japanese troops carry out United Nations peace-keeping duties, where the country has hitherto relied on US information, says a senior defence official.

The HQ will also be well staffed, initially bringing together 1,600 officers who work in five bureaux of the defence agency, rising to 2,000 staff in the next few years.

The foreign ministry, which had reservations about the HQ when first suggested by the defence agency seven years ago - on the grounds that it might show the wrong *tatemae* to the rest of Asia - was quick to dismiss any suggestion that the agency would carry out spying.

Yet whatever the *hone*, Japan's new intelligence HQ is the latest step in what was an invisible campaign of self-improvement by the half dozen government agencies responsible for gathering information on matters from technology to terrorism.

The HQ's main sources of information will be six existing electronic listening posts, from Hokkaido in the north, listening in to Russia and northern China, to Okinawa in the south, tuned in to

DATELINE

Tokyo:
A new intelligence HQ is part of a campaign to improve the country's information gathering, writes William Dawkins

east Asia. But the agency will have more clout than its predecessor when it comes to trading intelligence with friendly countries.

The plan for an agency started out as a controversial idea that got passed round unenthusiastic Japanese government departments for

years, neither progressing nor expiring. And the foreign ministry was not the only one to lack enthusiasm. The National Police Agency, top of the pile in Japan's factotum intelligence community, argued that such things should be civil business.

So how did the defence people win the day? Recent events on Japan's doorstep exposed potentially dangerous weaknesses in its intelligence gathering systems, stemming from its former shyness about employing competent lookouts. When former North Korean leader Kim Il-sung died two years ago, for example, the Japanese prime minister's office was alarmed to find that it took weeks to cajole the various intelligence bodies concerned into preparing a co-ordinated brief on the likely consequences.

Worse, in the same year, Japan's electronic watchers failed at the one

thing they were supposed to be good at: early warning. They had to be told by Greenpeace about Russian travellers dumping nuclear waste in the Sea of Japan, and heard from the US about the testing of a North Korean missile.

While good, but not infallible, at collecting detail, Japan's intelligence services were shown to be slow to react and bad at delivering snap analyses of international crises. "They have no shortage of talent and intellect, but they just can't pull it together," says one western expert.

The cabinet information research office, which collects information from other agencies and advises the prime minister, was upgraded one rank in the bureaucratic hierarchy soon after the Kim Il-sung shock to strengthen its position in ministerial turf battles.

Separately, the foreign ministry has increased its focus on intelligence analysis, rather than information gathering, and is seeking to expand the bureau. Its officials admit that they gather information abroad in a manner that some might consider covert.

Makoto Ito, a director in the foreign ministry's intelligence and industry and its trade arm. Their work is naturally legitimate - mainly reading trade journals and prowling cyberspace - though not immune from controversy. Only three months ago, Arlen Specter, chairman of the US senate intelligence committee, publicly accused Japan, among others, of "economic espionage".

The allegation raised an ironic laugh among Miti officials who remember US press accusations that the CIA had bugged Miti telephones during last year's automotive trade dispute. It only reinforces the point that less-than-official information gathering, or whatever the *hone* is, is part of any serious country's armoury. But at the level of *tatemae*, discretion rules.

runs a small number of agents abroad, keeping an eye on potentially dangerous Japanese nationals, such as members of the Red Army faction, a terrorist organisation. One of its members was picked up in Peru only last week.

For technology and economic information gathering there is the ministry of international trade and industry and its trade arm. Their work is naturally legitimate - mainly reading trade journals and prowling cyberspace - though not immune from controversy. Only three months ago, Arlen Specter, chairman of the US senate intelligence committee, publicly accused Japan, among others, of "economic espionage".

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Eurotunnel and the artful persuader

Patrick Ponsolle's conciliatory style is just what is needed, reports Geoff Dyer

Employees at Eurotunnel, the Anglo-French Channel tunnel operator, have noticed that Sir Alastair Morton, the group's co-chairman, has been unusually relaxed in recent months. This is in spite of a commitment to delay his retirement until the group has agreed a refinancing with its 225 banks and its recalcitrant shareholders, which could take until the end of the year.

The reason for Morton's demob-happy manner became apparent last week, when Eurotunnel revealed that Sir Alastair has already handed over a large part of his responsibilities to the French co-chairman, Patrick Ponsolle. Ponsolle, who has been in the job for the past two years, has assumed control of the general executive committee - responsible for operations and strategy.

When Sir Alastair does step down, Ponsolle will take the title of executive co-chairman, while the new British co-chairman will be part-time. Translation: Ponsolle, 52, will be very much in charge.

Ponsolle is in many ways the complete antithesis of Sir Alastair. While Morton has relished his domineering and bullying approach to the group's banks and contractors, Ponsolle is more amiable.

And while South African-born Morton has presented himself as an outsider banging on the doors of the British establishment, Ponsolle is, in French terms at least, the insider's insider. After graduating from the Ecole Nationale d'Administration, France's near obligatory training ground for top civil servants and industrialists, Ponsolle moved



Ponsolle will be very much in charge when Sir Alastair Morton steps down

on to the fast track at the French economics ministry.

A stint as the finance attaché in the Washington embassy was followed by promotion to deputy chief of staff to Laurent Fabius, the then socialist budget minister, later prime minister. In 1983 Ponsolle joined Compagnie de Suez, one of France's largest industrial and financial holding companies, where he rose to be chief executive. His departure from Suez in 1983 had been expected after he was overlooked for the chairmanship in favour of Gerard Worms in 1990.

With such a track record it is not surprising that one French banker refers to the chain-smoking Ponsolle as "the quintessential product of the French financial establishment". Ponsolle's accession to the top role also signals a shift in the balance of power on the Eurotunnel board towards the French side.

While Ponsolle will be in charge of strategy, the day-to-day operations are the responsibility of Georges Christian Chazot, the French chief executive.

Meanwhile, in addition to Sir Alastair, Graham Corbett, finance director, is retiring at the end of this month, which will deprive Eurotunnel of the two British driving forces behind its development. This tilt towards France among the group's senior management is a natural development, given that more than 70 per cent of Eurotunnel's shareholders are French.

The challenges confronting Ponsolle are clear. In effect, he is running two different operations. There is Eurotunnel, the financial basket case, unable to meet its £2m-a-day

interest bill and mired in negotiations with its unwieldy group of banks over a refinancing. Ponsolle has been raising hopes in recent weeks by predicting that an outline deal might be reached with the banks before the group's annual meeting on June 27. Eurotunnel shares have subsequently risen from 64p in early April to 95p three days ago. However, the movement has surprised analysts, given that any settlement would almost certainly lead to a substantial dilution of shareholders' interests.

Ponsolle is also in charge of Eurotunnel, the transport company, which is growing in confidence and is beginning to dominate the market for cars and freight crossing the channel. Last month, Eurotunnel moved on to the offensive in the cross-channel price war by slashing its summer fares. What they need is artful persuasion.

Analysts interpreted the move as an attempt to grab as high a market share as possible on the Dover-Calais route before there is a rationalisation of the ferry operators. P&O European Ferries, the largest company on the route, has already asked the UK government to release it from undertakings which prevent it from discussing mergers with its competitors.

Ponsolle's conciliatory style is probably more suited to Eurotunnel's present phase of development. Few deny that Sir Alastair's bluster and aggression were vital in getting the tunnel built, and that his abrasiveness was crucial in securing the group's two previous refinancings. But no amount of shouting and raging can compel families to use the tunnel en route to their summer holidays. What

they need is artful persuasion.

Marshall, 58, is unfurled by the affair. "The pressure does not get to me because I have absolute confidence we will come through this. We have a very strong product portfolio," he says.

He blames De La Rue's problems on "events conspiring against us", with the banknote business particularly badly hit by a surfeit of suppliers and a fall in demand. However, he is also keen to point to the rapid earnings growth at the company since his arrival in 1989, which almost quadrupled up to 1995. "We've had six very successful years and built up a very strong business which I feel sure will come through this negative period."

Marshall cut his teeth at Hanson, where he rose to become divisional chief executive of the UK engine division. He then spent two years in the same position at the British Airways Authority, which he guided



De La Rue chief holds firm as the City ponders

Jeremy Marshall, chief executive of De La Rue, describes the disappointing results announced last week as a mere "pause" in the banknote and specialist paper group's upwards earnings growth, writes Christopher Price in London.

Some investors think otherwise, and have been voting with their feet ever since the company warned that first-half profits would be less than last year and it would be spending £21m rationalising one of its problem divisions. It was De La Rue's third profits warning in just over a year, and the shares fell nearly 15 per cent in the four days following the results announcement.

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Marshall cut his teeth at Hanson, where he rose to become divisional chief executive of the UK engine division. He then spent two years in the same position at the British Airways Authority, which he guided

towards privatisation.

He describes his management style as consensual: "I listen to my peers carefully before acting." But he points to last week's restructuring decision as evidence of his willingness to take tough decisions when necessary.

Marshall's relaxed delivery and consensual management style have led some analysts to criticise him for aloofness. There is also concern over the timing of the rationalisation of the cash payment systems division. "The problems have been developing there for some time now, and we would have preferred to have seen the management move quicker," was the view of one disgruntled analyst.

If he gets irritated by City impatience, Marshall takes it out on the squash court and occasionally he plays tennis.

Meanwhile, he is touring the City sooths any nerves among the company's large institutional investors. "The strategy we are putting forward is a convincing one," he maintains.

'Rotten eggs' still a problem for Sommer

Ron Sommer, who is trying to steer Deutsche Telekom through Germany's biggest ever privatisation in November, has managed a thing or two since he took over at the country's least loved company in May last year, writes Michael Lindemann in Bonn. He has pushed through a grand alliance with France Telecom and Sprint, the US long-distance carrier, creating the world's third global telecoms operator.

Sommer also seems to have made some headway in persuading the company's 210,000 employees - half of them civil servants - that the only way Deutsche Telekom can survive at a time of growing competition is if it focuses on its customers, a notion which has until recently completely eluded Germany's telecoms monopoly.

In those days, Frater worked out of rooms in the Gellert, Budapest's elegant turn-of-the-century hotel. Now based in Kitzbühel, the Austrian ski resort, with his office in Vienna, Frater oversees a group with annual turnover of \$135m (£89m) and plants in Hungary, Poland and the Czech Republic.

day were available, for instance, in Capital, a German business magazine, two weeks earlier. The company admits it has lots of "rotten eggs" who are apt to speak out of turn.

The problem is of particular concern to Sommer, though, because the Securities and Exchange Commission, the New York stock exchange watchdog, is scrutinising the company's large institutional investors. "The strategy we are putting forward is a convincing one," he maintains.

Stephen Frater is on the road this week, doing best talking about Cofinec, the central European packaging group he built from scratch into one of the region's first home-grown multinational companies, writes Virginia Marsh in Budapest. Over the past seven years, the smooth talking, perpetually sun-tanned Frater has persuaded just about every important institutional investor active in central Europe to invest in the company he leads.

Born to Hungarian parents who emigrated to the US after the Soviet invasion in 1956, Frater was invited by George Soros to visit Budapest in 1989 to advise the US government on the role it could play in supporting the country's transition to a market economy. After hearing that Carlo De Benedetti was interested in investing in the region, he arranged a meeting through a mutual acquaintance and promptly persuaded the Italian industrialist to give him the seed capital to set up Cofinec.

One particularly thorny problem remains, however. Deutsche Telekom's workforce is nervous about privatisation and has been apt to leak all sorts of sensitive information about the company in recent months. The very rosy results which Sommer unveiled last Tues-

Peter Norman · Economics Notebook

Shadow economy could help Emu fly

Revaluation of GDP to incorporate informal economies is gaining credence

this week, gives an idea of the problem.

The good news is that Germany's government deficit, as defined by the Maastricht Treaty, should be under the all important 3 per cent of GDP next year and in the following years. But the government debt ratio looks set to break through the upper limit of 60 per cent of GDP this year and rise to 61.5 per cent in 1997, where it will stay for the two following years.

This is a potentially serious embarrassment for the German government and in particular for Waigel. He has insisted that the Maastricht criteria should be strictly interpreted if Emu is to go ahead as planned in 1999. He was singing this song again last Monday when he protested at the European Commission's judgment that Denmark could already be regarded as meeting the criteria in spite of a debt ratio of 73 per cent.

Denmark escaped the rigours of the 60 per cent criterion because its debt ratio has been coming down sharply in recent years. Germany's productive base is being hollowed out much as was Britain's in the early 1980s.

True, Theo Waigel, Germany's embattled finance minister, can draw some comfort from a recognition among voters of the need to rectify Germany's economic weaknesses. Despite noisy trades union protests, which are due to culminate in a massive anti-government rally in Bonn next Saturday, recent opinion polls indicate that 70 to 80 per cent of people favour some government action to put things right.

But not all the help he can get to overcome the hurdle of the Maastricht criteria in 1997, the year which will provide the data for the decision early in 1998 on entry to Emu.

The accompanying table, which draws on internal finance ministry forecasts prepared for a meeting on budgets and deficits with states and local authority officials

GDP. The government's controversial measures to boost growth and employment recognise the shadow economy's existence by proposing tax relief for householders who are prepared to provide legitimate employment for domestic labour. Moreover, as reported in this column recently, Germany's statistics are in such a shambles that a GDP figure incorporating a guessimate of informal activity is just as likely to be accurate as the official figures.

There is already a precedent for incorporating an estimate of the shadow economy in GDP. Italy revised the size of its economy upwards by 17 per cent in this way in the 1980s in an exercise approved by the Organisation for Economic Co-operation and Development. The idea is gaining ground. As my colleague Gillian Tett disclosed last month, Eurostat, the Commission's statistical service, is preparing revised statistics to take account of the problem and has estimated that the Belgian, Greek and Portuguese economies are about 20 per cent bigger than current figures suggest.

All Germany needs is the political will to revalue its GDP. Clearly, such a step would be very difficult for Waigel. But he has often been rumoured as a candidate for the Bonn foreign office. A cabinet reshuffle putting Waigel in charge of German foreign policy could be presented as a fitting reward for a man who has held down a punishing job for more than seven years and who only a few days ago was to be seen happily hobnobbing in the Kremlin with President Boris Yeltsin. It could also make Emu's planned take off in 1999 rather more likely.

A third approach would be to "revalue" the GDP of the EU member states by taking account of the substantial volume of activity in their informal or semi-legal shadow economies. The ministry view, backed by the

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MANAGEMENT

The seedbed of job creation

Last week's article on the management page looked at the tactics that different companies have used to create or preserve jobs. This week's focus is on companies whose long-term approach to their business leads directly to a high rate of job creation.

It is well-known that small companies are the main source of new employment opportunities. Both in Europe and the US, start-up companies create more jobs than are lost to the economy through redundancies. More than half the total working population is employed by small- or medium-sized businesses.

Some successful small companies grow into large companies that continue to produce new vacancies. One of the ways they do so is by replicating the conditions that enable small businesses to thrive.

Clearly, it is easier to create jobs in expanding industries, such as technology and services. However, even within these fast-growing sectors, some companies stand out as innovators, creating many new, high-paying jobs. Take Thermo-Electron, the Massachusetts-based technology company, whose earnings per share have grown at 97 per cent annually for the past 10 years - the highest rate in the Fortune 500.

Founded by George Hatzopoulos, an MIT-trained scientist, to "identify emerging scientific problems and develop technological solutions", Thermo-Electron has expanded into a "family" of 15 technology companies, with products ranging from explosives detectors to low-emission bus engines. Its workforce has grown from 5,700 in 1991 to almost 17,000 today.

According to John Hatzopoulos, the company's chief financial officer, the key to its success is its "spin-out" strategy. A "spin-out" is not a spin-off. Thermo spins out its best, fastest-growing, core technologies - not its underperformers. A division must show potential for 30 per cent annual growth in order to qualify for being spun out. The company then offers new stock to the public while retaining a majority interest. The proceeds of the share offering go to provide capital for the new company.

Since 1993, Thermo has spun out 12 companies, every one of which has appreciated in price since going public. The company expects to launch another five "baby Thermos" during 1996. Moreover, the largest Thermo spin-outs are beginning to produce offspring of their own.

The spin-outs have proved an ingenious means of providing extra financing for research and development. They also prevent the top performers from leaving. "We have created the most loyal employee base in the world," says John Hatzopoulos. "We like to brag that we have never lost a single employee to a competitor or to set up a new company. Everybody sees himself as being in a race to invent new technologies and to run his own company."

New ideas are well rewarded. "There's no better way to stimulate creativity," he says, "than to see a guy next to you get \$500,000 (\$330,000) in options for a great idea."

The Thermo spin-outs combine the advantages of small start-up ventures with the support of a strong parent. Thermo provides most of the administrative, legal and financial infrastructure for the 15 affiliated companies. Some have criticised the system of spin-outs for producing a higher than necessary headcount, but Hatzopoulos believes that "without this strategy, our growth would have been a fraction of what it is".

Another company that has tried to emulate the fast growth and high rewards approach of the best small businesses is Bertelsmann, the German media conglomerate which is 90 per cent owned by the

In the second of two articles, Linda Bilmes looks at the solutions companies adopt to create employment and fresh opportunities

Reinhard Mohn family and foundation who "strive to create an environment that emphasises and promotes individual initiative". With sales of more than \$14bn, Bertelsmann has increased its workforce from 44,000 to 58,000 during the past four years. Its strategy is to motivate employees by turning their divisions into independent profit centres, in which managers invest personal capital.

Before 1992, the group experimented with this formula in selected pilot areas. It proved so successful that the scheme was extended throughout the 300 divisions. Managers can invest between DM25,000 (£10,000) and DM2m, with the average contribution about DM200,000. In recent years the managers have earned an annual return of between 20 per cent and 30 per cent on these investments. In addition, Bertelsmann employs incentives, including profit-sharing and performance-linked bonuses, for lower-level employees.

The conglomerate is highly decentralised and seeks to foster a "small-company feel" in each profit centre. Some believe the system leads to duplication and requires more employees than a traditional organisation, but it is part of a successful plan to encourage the innovator and the entrepreneur.

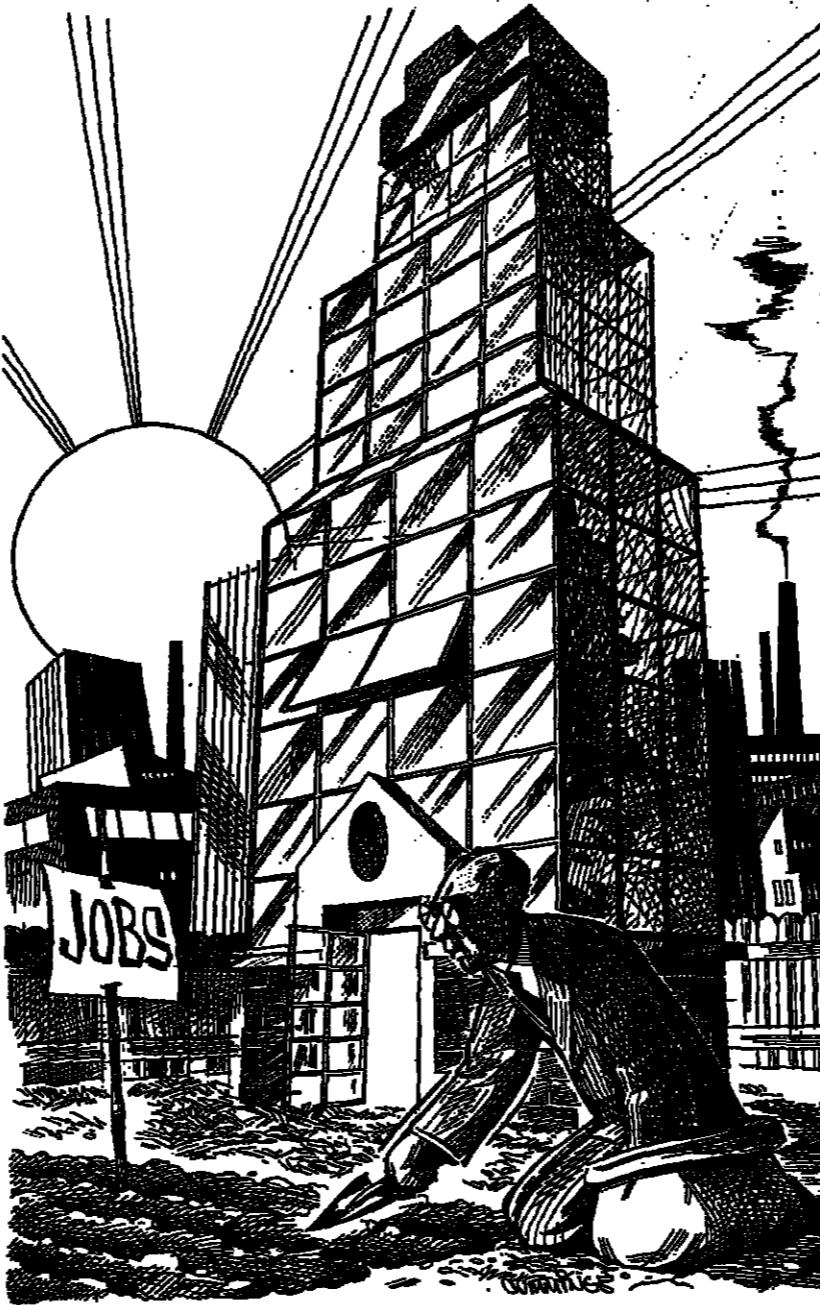
A company that does it all - avoids job cuts in the short term and also creates new jobs at an impressive rate - is Hewlett-Packard. While many other computer companies have cut jobs, the company, based in Palo Alto, California, has grown from 83,000 to 99,000 employees in the past decade, with revenue per employee growing even faster. Its success, sustained over four decades, cannot be attributed to any single factor. But once again, it is a business that has tried, despite its size, to mimic the dynamism, informality and entrepreneurial spirit of a small company.

Some of the company's innovations such as "management by wandering around" are well known. But in addition, HP pioneered some of the most progressive employment changes of the era, including flex-time, telecommuting, job-shares, independent business units, company-wide stock options, and linking managers' pay to their rate of new product designs.

It believes that its organisational structure, decentralisation and focus on the individual lead directly to higher rates of innovation - a critical factor in the company's success. To do this means having an ample padding of employees to handle the day-to-day projects, leaving others free to tackle specialist ones. For example, John Young, former chief executive officer, tells the story of how, in the mid-1980s, HP's leadership in spectrum analysers was being threatened. Many companies in this situation would have withdrawn from the market, outsourced manufacturing, or attempted to improve the existing product. But HP took a more radical line. It formed a team with every corporate function and its suppliers to work full-time on developing a new product. "The result," says Young, "was a product which quickly captured 75 per cent market share."

HP offers employees an almost Japanese-style guarantee of employment. To keep expenses down without job cuts, the company works relentlessly to cut non-labour costs by managing its supply chain, receivables and inventory. HP takes pride in the fact it has never cut the job of a worker.

No discussion of long-term employment growth would be complete without looking at California, the world's seventh-largest



economy and its foremost laboratory for creating jobs of the 21st century. During the next decade employment is forecast to grow at double the rate of the US as a whole. Moreover, the state has already recovered from vast job losses in the defence industry which followed the ending of the Cold War.

Most of this growth comes from small companies. The medical technology sector alone is adding workers at an annual rate of 9 per cent, two-thirds of whom are employed by companies with fewer than 50 people. California also has the lion's share of America's fast-growing companies in multimedia, software, biotechnology and telecommunications. These companies take deliberate steps to preserve their small-company character as they grow.

One example is Chiron Corporation, a bi-medical company that has grown from 600 to nearly 7,000 employees in the past four years. Rajen Dalal, vice-president for corporate planning and business development,

attributes the company's growth to two factors. The first is excellent science. Chiron discovered hepatitis C and now manufactures the only diagnostic blood test for the virus. Second, Chiron engages in "creative partnerships" - "trust-based, 50-50 joint ventures, run by mutual agreement and consensus", with a number of larger pharmaceutical companies, including Johnson & Johnson, Ciba-Geigy, and Seare. "We are among the most prolific partnership companies anywhere," says Dalal. "This has enabled us to reduce our scientific and clinical risk, and to increase our capabilities in research, development and marketing." Chiron's approach contrasts sharply with industry standard-bearers such as Amgen and Genentech, who insist upon 100 per cent ownership. It is striving to preserve a "small-company feel" in spite of its internal growth and numerous acquisitions. "Size brings with it certain kinds of structure," says Dalal. "But we try to balance the need

The author is a manager at the Boston Consulting Group.

for structure and planning with a certain amount of ambiguity and chaos, so we don't lose the ferment of ideas, the flexibility to change direction at short notice."

To encourage innovation Chiron has taken the radical step of making basic research separate from its commercial activities. "We have created a biotech company within a biotech company," Dalal says. "It has its own profit and loss and does deals to raise money."

Another California company, Silicon Graphics Inc (the firm that made the dinosaur scenes in *Jurassic Park*), has been growing at some 40 per cent annually since 1984, and hiring rapidly to keep pace. Last year the company announced that, in order to achieve 20 per cent growth in sales, it would double its workforce of 3,000. In addition, it acquired Gray Supercomputers, along with its 4,000 employees.

SGI needs more people to succeed in the company's core strategy: to keep expanding the product line rapidly and to make everything backward-compatible. "This policy," according to one senior manager, "is a difficult and labour-intensive process." SGI remains flexible by constantly reorganising. There is an "unwritten rule" to reorganise the whole company every year.

According to a study by Joel Kotkin of the Center for the New West, what sets Californian companies apart is the "network economy". Successful companies nurture hundreds of smaller businesses, suppliers and contractors - many of which go on to become substantial enterprises. They do so through "regional networks" that rely on partnerships in the private section.

Networking can take the form of joint projects (often without a formal joint venture), short-term collaborations and cross-financing. On the other hand, it can be simple measures such as the loan of office facilities and technical equipment to startups during off-peak hours. In entertainment, this network "helps entrepreneurs move their firms to expand beyond film and television into music, advertising, theme parks and multimedia", says Kotkin.

Rod-L Electronics is one of the thousands of companies that have prospered through Silicon Valley's informal network. Founded in 1977 by former HP manager Roy Clay Sr, the company manufactures electrical safety equipment. "William Hewlett and David Packard pioneered the local tradition of entrepreneurs helping themselves by helping each other," says Clay. "So when I wanted to become an entrepreneur, HP signed on as my first customer."

The company examples cited in this and last week's articles underline the central role of the private sector in job creation. But more specifically, they show the imaginative solutions that many businesses use to preserve and create jobs.

It may be time for governments to rethink their approach to the unemployment problem and in particular to consider whether more resources should be directed towards harnessing the energies of the private sector.

A recent study by the Organisation for Economic Co-operation and Development underscores that point. In nine member countries, the most successful unemployment programmes were those that helped jobless workers to set up their own businesses. The study found, on average, a survival rate of more than 50 per cent for such businesses after three to five years. Even people whose businesses failed found new jobs more frequently than non-participants.

The author is a manager at the Boston Consulting Group.



Deafness

The busy production floor of a car manufacturer, packed with heavy industrial machinery, hardly seems the ideal location for profoundly deaf workers.

Nevertheless, British car manufacturer Vauxhall Motors, based in

Whitley, near Oldham, Lancashire, has

recruited two unemployed men

with severe hearing difficulties

to work on the assembly line at its Luton plant. The company

with the assistance of the Royal National Institute for the Deaf

has adapted the way it

communicates with the men to

meet their needs and the safety

requirements of the factory.

According to the RND:

Vauxhall is one of the better employers for the UK in its

dealing with the deaf. More

than 90% of the working

population have some degree of

hearing loss, with an estimated

4.5 million suffering severe or

profound deafness.

The government's Labour

Party, however, suggests deaf

people are twice as likely to be

unemployed as people in

general, and that those in work

are about 50 per cent more

likely to be in manual jobs.

Communication is something

we all take for granted, and

deaf people may be reluctant

to communicate with them.

According to the RND:

"Deafness is a disability

highlighted in a recent

campaign, does not agree with

lack of ability. Vauxhall

recruited its two new workers

on merit. The two men met all

the standards and were treated

exactly the same as everybody

else in the interviewing process,

except that they used an

interpreter, provided by the

local Jobcentre."

Parsons, Vauxhall's Head of

Training at Luton:

Vauxhall's awareness of what

can be done to assist deaf

individuals has increased its

involvement in the RND's

"Loud Than Words" campaign.

This seeks to highlight the

ways organisations can adapt

their methods of communication

to make information accessible

to people who are hard of

hearing. Initially Vauxhall

looked at the scheme because it

wanted to prove it could

communicate with deaf

customers.

At present about 210m of

government funds are available

every year to help people with

disability gain access to the

workplace. In the case of its two

new recruits, Vauxhall was

given funds to equip them with

instruments strapped to their

hips, which vibrate when

forklift trucks are in their

vicinity and when fire alarms

go off.

Although both men are deaf,

interpreters are being provided

by the local Jobcentre to assist

during their training. The men's

supervisor and team leaders are

being taught to deal with issues

that may arise because of the

men's deafness.

Parsons says: "The key is to

create a sympathetic

environment. Safety is

paramount at Vauxhall and

these two are no exception. But

we have worked with these two

men to meet their specific

requirements."

Lisa Wood

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BUSINESS EDUCATION

Large corporations are losing their attraction for MBA graduates, says Tony Jackson

Downing a bitter potion

As the downsizing wave in America continues, big corporations sometimes give their backs on the workforce. One small but important group of workers seems to be returning the compliment: the MBA graduates from America's business schools.

In 1990, 50 per cent of the MBA (master of business administration) class at Stanford went to work for companies with more than 5,000 employees. By 1993, the figure had dropped to 32 per cent. The number going to companies with less than 500 employees went up from 11 per cent to 14 per cent.

Alan Merten, dean of Cornell's business school, says: "The theory used to be that working for a small company gave you high risk and a high return, while you got low risk and low return at a big company. Now big companies are risky as well."

Samuel Culbert, professor at the Anderson business school at UCLA in Los Angeles, puts it more starkly. "Our MBA students have seen their parents' [employment] history, the betrayals and the broken promises. They're so afraid of the organisation that they devote enormous creativity to developing scenarios for entrepreneurship."

At Cornell, Merten says, the most popular optional class in the MBA course is that on entrepreneurship. Partly, this is because studying the small company gives a better grasp of how the whole business works. But



there are also students who want to work for small companies on principle.

"Frankly, it's scaring the big companies," he says. "They're having to become much more aggressive on campus in their recruiting."

There is another aspect to the phenomenon: the sharp rise in MBA recruitment by management consultancies which - like the likes of Andersen and McKinsey apart - are mostly small organisations. Consultancy swallowed a third of the class of 1994 from both Stanford and the University of Pennsyl-

vania's Wharton school. A decade previously the figure was only about 15 per cent.

This is the result of rapid growth in the consulting industry and its consequent appetite for good graduates. But that growth is in turn intimately connected with the downsizing and re-engineering movement. For a bright MBA, there is obvious appeal in wielding the axe rather than being its target.

When it comes to hiring, not all big companies seem to be equal. The biggest single hirer at Cornell this year, Merten says, is Hewlett-Packard. "That's a classic example of a big company operating as a group of small companies," he says. "Others try to present themselves that way."

Eugene Skogg, head of recruiting at General Electric, agrees. "Big companies do have to present themselves as smaller entities," he says. "All our market research has shown that the more specific you can make the job and its opportunities, the more the appeal."

According to Skogg, GE has encountered no difficulties. The company has 12 operating divisions. Of those, the main hirer of MBAs is GE Capital, which alone comprises 25 different subsidiaries. "While we always show our links to the bigger company," Skogg says, "our strategy is to showcase the individuality of each business."

If a classic conglomerate such as GE can pull this trick off, other big companies may find the going harder. The implications for corporate America are thought-provoking.

As Merten observes, graduates who succeed with small companies may be lost to the big corporations for good. "In a small company, you work across a broad range of disciplines. It will be harder to attract successful people to the narrower work of the big company."

If so, downsizing may turn out to be not just a euphemism, but a literal fragmentation of American business into smaller entities. In terms of jobs and economic performance, that might, in the long run, be no bad thing.

NEWS FROM CAMPUS

Goodbye to the case study and simulation

Academics at Hec school of management in Paris have developed a method of teaching which they say improves on the traditional case study or simulation.

Students on the bilingual

MBA course (French/English) are given data on the development of an actual company - Ferrovie dello Stato (FS), the Italian national railways - over five years, together with information on transport generally in the region. They are then given four potential scenarios and have to formulate strategies based on the information.

The three-and-a-half-day study ends with each group presenting their solutions to the chief executive of FS. *Hec France, T 33 67 70 00*

Management study in the heart of Shanghai

Managers involved in business in China and Chinese managers alike are the target group of a two-week management development course which will be held in Shanghai in October.

The course will be hosted

Group of four chosen for training scheme

Four UK organisations have been selected to develop a continuing professional development scheme for managers in all areas of business.

The model, which should be fully developed by next summer, is intended to provide a relevant way for managers to develop their skills in line with both their personal objectives and the goals of their organisation.

The partners selected by the Management Charter Initiative for the government-funded scheme are the Association of Accounting Technicians, the Engineering Council, the Institute of Administrative Management and the Royal Institute of British Architects.

MCI UK, (0171) 872 9000

• The latest book focusing on lifelong learning has been published by Kogan Page, in London. *Lifelong Learning* is co-authored by Norman Longworth, vice-president of the National Women's Business Council, which is making the recommendations publicly available.

Top of the list of priorities is financing, followed by education and training. *Kogan Page: UK, (0171) 278 0433*

CONFERENCES & EXHIBITIONS

FAIRPLACE CONFERENCES

CREDIT STANDARDS TODAY

27th June 1996, The Brewery, London EC2

One-day conference to examine:

- The Credit Cycle and variations in standards - Tom Donaldson, British Bankers Association and J.P. Morgan.
- Lenses of 1987-1991 - Peter Shattock, Credit Suisse
- Loss Structure and Control - Ken McGinn, Bankers Trust
- Documentation and Covenants - Sean Boyd, BZW
- Legal Aspects - Robin Parsons, Cameron Mackay Hewitt
- Sources of Credit Information - Philip Mellor, Dan and Bradstreet
- Staff Training - Chris Sadler, Natwest
- Central Bank's view - Paul Kent, Bank of England

For further information contact:
Linda Mantle, Fairplace, Birchin Court, 20 Birchin Lane, London EC3V 9DJ
Tel: +44 171 623 9112

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FIA/FOA International Derivatives Week Annual Derivatives Conference and Exhibition

Futures and options industry participants exchange views on the latest international business, regulation and compliance, technology and clearing/settlement issues. The exhibition will show the emerging markets.

Contact: The FIA/FIA Futures and Options Association Tel: 0171 263 2154/2157

LONDON

JUNE 11
Brazil and the Real Plan:
An Assessment Two Years On and Outlook for the Future

For more information contact: SBC Ltd, The Adviser to the Reserve, will be hosting a special presentation by Finance Minister Pedro Malan and Central Bank President Gustavo Loyola at Ironmongers Hall, Barbican 4-5 PM.

BARBICAN

JUNE 13
Fabian Business Seminar Labour & the Lottery

Speakers: Rt Hon Dr Jack Cunningham MP, Dr Lewis Moonie MP, Sir David Puttnam, David Rigg, Diana Kahn, Diane Coyle, Dr Susanna Fisher, George Wilson, GCHQ

For last minute bookings call Sarah Atkin at Neil Stewart Associates on 0171-222 1280/Fax: 0171-222 1278

LONDON

JUNE 17 & 18
FT World Aluminium - Strategies for a Global Market

Jean-Pierre Rodet of Pechnay; George Hayman of Kastor; Jochem Schreiber of VAW; Ronald Thoen of Crown Cork; Seal; Gerald Janicki of McDonald Douglas; and others will discuss the uses and uses of aluminium - will discuss, debate and analyse, the crucial strategic issues facing the sector as it becomes truly global.

Enquiries: FT Conferences Tel: 0171 896 2626 Fax: 0171 896 2696

LONDON

JUNE 18
Restoring Public Trust: Nelson II & the future of local quangos

Speakers include: David Willets MP, Jack Straw MP, Professor Anthony King, Professor David Margash, Sir David Hockney, Head of DEMOS.

Details and bookings call Neil Stewart Associates on 0171-222 1280/Fax: 0171-222 1278

LONDON

JUNE 19
Pensions & Long Term Care - The Role of the Private Sector

Peter Lilley, Frank Field, Ann Robinson and John MacGregor are among the principal speakers at this topical conference sponsored by AUTIF with Fidelity, Legal & General, Price Waterhouse and Watson Wyatt.

£520 + VAT 2 days. Contact: TFL/Nicola Blackman Tel: 0171-606-0084/601-2123

Fax: 0171-600-3751

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JUNE 21
Large corporations are losing their attraction for MBA graduates, says Tony Jackson

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JUNE 25-29

Jordan Exhibition

Offers a range of new business opportunities from chemicals and raw materials to clothes and textiles, from food and beverages to pharmaceuticals. Daily 10am - 6pm (except 25th June 12 noon-6pm) at the Arab - British Chamber of Commerce, 6 Regency Square, London SW1 X RPL. For details call PR Dept. Tel: 0171 235 4363 Fax: 0171 396 4499

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Contact: Business Intelligence Tel: 0181 543 6565 Fax: 0181 544 9020

LONDON

JUNE 27

From Information to Knowledge Management

Knowledge Management can turn the financial capital of an organisation into financial capital that adds value and other benefits. How does this new technology relate to information management? What are the similarities and difference and how do you combine both to achieve maximum advantage? A UNICOM business seminar.

Contact: DYP Conferences Tel: 0181 256 4844 Fax: 0181 516 6197

LONDON

JUNE 28-29

Private Finance in the NHS

A one day conference sponsored by UNISON to examine the workings of the Private Finance Initiative in the NHS. Speakers include Harriet Harman MP, Philip Hunt (NAHT), Peter Cutler (Robson Rhodes), Toby Harris (ACHCEW) and Gordon Best (The Kings Fund). Contact: Samantha Dixon, Neil Stewart Associates Tel: 0171 359 3535

LONDON

JUNE 29

Offshore Finance '96

The conference will offer offshore professionals and financial advisors an ideal networking opportunity. Sponsors include: BNP Paribas, Citicorp, CMC, Crisbank and Coopers & Lybrand. For details contact All Hallows at MEC Conferences Tel: 0171 924 2900 Fax: +44 171 924 299

LONDON

JULY 1-2

The Intranet: Transforming Enterprise Information Management

Companies are increasingly using intranet technology for their own internal use allowing employees to share information and collaborate on projects. This major conference explores the issues related to the design, implementation and management of these intranets.

Contact: Business Intelligence Tel: 0181 543 6565 Fax: 0181 544 9020

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JULY 18-19

CHINA: Financial Markets & Opportunities for Foreign Investors

Speakers include HE Jiang Enzhu - Ambassador of the PRC; Qiao Gang - Beijing Commodity Exchange; Prof Fan Gang - Chinese Academy of Social Sciences; Nick Hope - The World Bank; Dr Patrick Law - World Trade Organization Michael Wahba - LSE

For details call Joanne Thomas on

+44 171 521 2043

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JULY 20-21

FT World Gold

Authoritative speakers from Europe, the USA, South Africa and the Asia-Pacific region will share their views on the latest developments in the gold market. Central bank activity, supply and demand, and derivatives are among the subjects to be addressed.

Contact: FT Conferences Tel: 0171 896 2626 Fax: 0171 89

COMPANIES AND FINANCE

Heron raises £28m in Victoria Place sale

By Simon London, Property Correspondent

Heron International, the property company headed by Mr Gerald Ronson, has raised £28m from the disposal of the Victoria Place Shopping Centre, built around Victoria Station in central London.

The buyer in Speciality Shops, the retail property company which floated in 1994.

The acquisition of the 75,000 sq ft centre is the company's largest so far, and its first deal in London.

The disposal is the latest stage in the re-shaping of

Heron, following its acquisition in 1994 by a consortium of private US investors.

Last year the company sold another of its largest assets, a retail and office building on Oxford Circus, to the Burton group for £94.5m.

Speciality Shops already owns shopping centres in Edinburgh, Leeds, Maidstone and Bishop's Stortford.

Net assets at the end of 1995 were £29.6m.

In Edinburgh the company hopes to benefit from plans being drawn up by Railtrack, the privatised rail company, for the redevelopment of the city's Waverley station.

Victoria Place contains 33

shops and 10 restaurants, some of which are suspended above the station platforms.

The building produces rental income of about £2.3m, giving a yield at the purchase price of 8.25 per cent.

Speciality Shops already owns shopping centres in Edinburgh, Leeds, Maidstone and Bishop's Stortford.

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Gerald Ronson: disposal is latest stage in group re-shaping

NEWS DIGEST

£22m so far for Primary fund

Primary Capital, an independent private equity investment company set up by two well-known figures in the industry, will today announce it has raised at least £22m for a new fund.

Mr Charles Gonsor, a senior partner at Phildeven Ventures until 1994, and Mr David Hutchings, former deputy managing director of Montagu Private Equity, began marketing the fund almost 18 months ago.

Mr Gonsor said there were commitments of a further £2m from investors who said they would subscribe after the first closing. He hoped to have raised another £40m from additional investors by the end of the year.

The new fund will back management buy-outs with a value of between £5m and £100m, although Mr Gonsor did not expect too many large transactions.

The Primary fund is one of the first unquoted independent private equity funds to have been set up from scratch since a spate of new funds emerged in the early 1980s.

Richard Gourlay

Trio deeper in the red

Exceptional charges up from £4.68m to £7.81m left Trio Holdings, the money broker, with increased pre-tax losses of £11.75m for the six months to March 31, against £3.21m last time.

Mr David Hagan, chairman, said that the group had been busy implementing a strategy to reshape and reposition itself.

Unidare bears out warning

Unidare, the Dublin-based engineering group, saw first half pre-tax profits fall 27 per cent - justifying the warning delivered at the annual meeting in March that the interim outcome would fall shy of City expectations.

Reflecting disposals, turnover for the six months to March 31 declined 18 per cent to £67.8m (£70m). Pre-tax profits totalled £3.01m, against £4.11m last time which took in £168,000 of restructuring costs.

The UK's leading accountancy firms traditionally break out of their shells in June, shedding the financial privacy which is their right as partnerships to disclose about their businesses.

But this time things are going to be different.

The so-called Big Six firms, which normally dominate the league, have agreed among themselves that this year they are not playing the game. They argue that rapid change among audit firms servicing companies in the FTSE 100 has left the annual fee income table which brought together the figures they released looking like a relic from the past and largely irrelevant.

The engine for this rapid change is the fear among the big firms of escalating legal costs linked to their unlimited liability as partnerships.

KPMG, one of the Big Six, has incorporated part of its audit business to help limit liability, and this led it to publish full 'pic' style results in January.

But other Big Six firms are unlikely to follow this route as they claim to have found a better answer to the problem of limiting their exposure to litigation costs: they are looking at registering as limited liability partnerships in Jersey. This

option would not automatically lead to greater disclosure, unlike incorporation.

The Big Six say their best course of action is to disclose results separately - possibly alongside global figures for their worldwide networks later in the year. Ernst & Young has promised to provide fuller results in a partnership format this autumn.

Sceptics wonder whether the

Big Six are simply taking the opportunity to ditch the annual table which provided a sometimes embarrassingly clear picture of the whole sector.

But other more fundamental pressures were also at work. The UK fee income table failed to show the profitability of the Big Six's various lines of business. It also failed to show the global nature of their client services and the fact that their real competitors are often legal firms, merchant banks, or specialist consultants rather than each other.

The annual table also lumps together the big audit firms

and the so-called "second tier" firms, although their businesses have become radically different. Only three firms outside the Big Six - Clark Whitehill, Pannell Kerr Forster and Kinsella Impey - have a FTSE 100 audit, and one of those audits is shared. Outside the Big Six many firms service smaller niche markets or specialise in owner-managed and growing businesses.

But the annual fee income table still represented the best data available. This year, firms below the Big Six are going ahead with the normal level of disclosure - and early indications are that the sector is finally pulling into growth above inflation. The information we have also suggests the Big Six firms are growing fastest in terms of revenues.

More importantly, a comprehensive survey of fees paid to the FTSE 100 auditors, published last week by *Accountancy Age*, showed a 0.5 per cent increase in normally stagnant statutory audit fees - and a healthy 9 per cent growth in add-on fees such as IT advice and tax.

With widespread anecdotal evidence that corporate finance fees have been running strongly, the future looks brighter for the sector than it has for several years.

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10th June, 1996

Management in £17.5m buy-out of two CI pits

By Patrick Harverson

By Conner Middemann

The

Al-Fayed brothers are considering the flotation of Harrods, the London luxury department store they own, a move that industry analysts estimate could value the group at about £22m.

Harrods said yesterday that no firm decision had yet been taken, and that there was no timetable.

However, it is understood that a flotation is among a number of options being considered to fund the company's expansion.

If a flotation does go ahead, it is unlikely the Al-Fayed brothers would take control of the company and analysts believe no more than 25 per cent of the company would be sold, raising about £500m.

Harrods' expansion plans include: a revamp of the Knightsbridge store; the creation of a 144-room hotel at the company's old depositary in Trevor Square; the redevelopment of the company's Barnes depository as a luxury residential complex and of the Knightsbridge Court House, which Harrods bought for £25m last December, into high-class service apartments.

The company also wants to expand its presence overseas.

In making its decision on whether to float, Harrods is likely to be influenced by the success of other luxury goods companies which have sold shares in recent months.

Recent successful flotations include Harrods' Knightsbridge neighbour, department store Harvey Nichols, Saks Holdings, the parent company of Saks Fifth Avenue in New York, Italian fashion house Gucci, and Italian jeweller Bulgari.

With Mohammed Al-Fayed and his brother Ali acquired Harrods in 1985 as part of the House of Fraser department store group. Since then they have floated off other stores in the House of Fraser group.

WEEKEND SHARE WATCH

A digest of:

Saturday and

Sunday comment on

UK companies

■ SmithKline Beecham

denied a report in the Independent on Sunday that it is planning to move its corporate headquarters from the UK to the US, with the loss of up to 500 jobs.

A spokesman for the Anglo-American drugs group said the story was "absolutely untrue".

■ Carlton Communications,

the media group, is in talks

to buy the UK's biggest

advertising sales house, Cin-

ema Media, according to the Sunday Telegraph.

Cinema Media - better

known by its former name,

Rank Screen Advertising -

holds about 80 per cent of

the cinema advertising

market, and industry sources

estimate a £35m price tag

for the company, the paper reported.

No company spokesman

was available for comment.

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U.S. \$50,000,000

Variable Rate Subordinated Notes due 2000

NOTICE IS HEREBY GIVEN that in accordance with Section 5(b) of the Prospectus, "Description of the Notes", dated 11th October, 1995, as amended by the Supplementary Listing Particulars, dated 16th October, 1995, Okobank will redeem all of the outstanding Notes (100 per cent. of their principal amount) on the 24th July, 1996 (the "Redemption Date").

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Chase Manhattan Bank Luxembourg S.A.

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COMPANIES AND FINANCE

Rome prepares more state sales

By Andrew Hill in Milan

The Italian government's privatisation advisers will this week begin final preparations for the rapid sale of the Italian Treasury's shares in Ima, the insurer, and Imi, the banking group, which together could raise up to L1.800m (\$1.6bn).

In its first firm statement on privatisation, the centre-left government announced last week that it intended to place 6.77 per cent of Imi - all its remaining shares - and about half of its 31 per cent stake in Ima with institutional investors, by the end of July.

By October, the Treasury intends to sell a second tranche of shares in Eni, the oil, gas and chemicals group.

The shortlist did not include the long-awaited sale of a 64 per cent stake in Stet, the tele-

communications holding company, and the first stage of privatisation of Enel, the state electricity producer. Bankers believe these sales may not take place until early 1997.

Treasury officials said Mr Carlo Azeglio Ciampi, the new Treasury minister, had wanted to give "a strong signal" about the government's willingness to proceed with privatisation.

In the meantime, the government would continue to press for the rapid completion of the regulatory framework for an early sale of Stet and Enel.

Certain centre-left politicians have been lobbying for a reshuffle of management at Stet and Enel, to encourage faster liberalisation. Political battles are likely to be fought in coming weeks over the membership of Eni's board.

"In Italy, the

only way to go forward is often to go suddenly," said one adviser last week.

The sale of half the 21 per cent Ima stake will be achieved through an innovative issue of government bonds, which can then be exchanged for Ima shares. The method was selected to avoid having to place Ima shares at a price lower than that of the initial offering in 1994.

The government is yet to indicate how many Eni shares will be offered in the second tranche this autumn, if anything, the appetite for Eni stock has increased following last autumn's sale of a 15 per cent stake, and the share price has risen strongly since.

The government has confirmed the original global co-ordinators, valuers and advisers for all three offerings.

Aznar friend takes chair at Telefónica

By Tom Burns in Madrid



Mr Juan Villalonga, a merchant banker and a childhood friend of Spanish prime minister José María Aznar, has been appointed chairman of Telefónica, Spain's largest industrial group, which is 20 per cent state-owned - following the formation of a new government.

He replaces Mr Cándido Velázquez, who was appointed by the previous socialist government. Over the past seven years Mr Velázquez has built Telefónica into the largest telecoms operator in Latin America and doubled the group's profits to \$1.8bn.

Mr Villalonga, 43, formerly chief executive of the Madrid office of Bankers Trust, takes over at a challenging time. The domestic telecoms sector is to be wholly deregulated over the next two years and Telefónica, which is in the midst of complex negotiations to secure international alliances, will be fully privatised.

As part of the change-over of top executives in companies linked to the public sector, Mr Oscar Fanjul, the founder and chairman of the energy group Repsol, has been replaced by Mr Alfonso Cortina, a close friend of economy minister Mr Rodrigo Rato, and Mr Cesáreo Alerta will today become chairman of Tabacalera, the tobacco company, in place of Mr Pedro Pérez.

Mr Cortina, formerly president of the cement company Portland Valderribas, is a

director and major shareholder of Banco Bilbao Vizcaya (BBV), which is in turn a major shareholder of Repsol.

BBV denied yesterday it had orchestrated the removal of Mr Fanjul and said Mr Cortina had been appointed at the request of the government.

Mr Alerta, a prominent Madrid stockbroker, will be entrusted with the disposal of the 52 per cent stake that the state holds in Tabacalera.

Last month Mr Aznar's centre-right government put another broker, Mr Francisco González, in charge of Argentaria, the banking group which is 25 per cent owned and is also due to be fully privatised.

Repsol is to acquire a controlling 36 per cent stake in Astra, the second-ranked gas company in Argentina, for \$360m. The Spanish group is already present in Argentina through its Gas Natural unit.

AsiaSat share sale to be priced at HK\$20

By Louise Lucas in Hong Kong

Asia Satellite Telecommunications, the Hong Kong-based satellite consortium, has set a maximum of HK\$20 a share for its flotation on the Hong Kong and New York stock exchanges, higher than the HK\$14.88-KS18.18 figure suggested last week.

Shareholders, who are selling 27 per cent of the company, stand to raise up to HK\$2.1bn (US\$271m).

AsiaSat is now equally owned by Hutchison Whampoa, the Hong Kong conglomerate; Cable and Wireless, the UK telecommunications group; and China International Trust and Investment Corporation (Citic), Beijing's main investment vehicle. The three have been with AsiaSat since its inception in 1988 and have drawn no dividends or other funds in that time.

The increased pricing suggests strong demand but the offer will be affected by recent crashes of rockets launching satellites.

In February, a Chinese rocket, a new generation Long March, blew up, and earlier

this month Europe's new Ariane 5 rocket exploded shortly after lift-off on its maiden flight from French Guiana.

AsiaSat now owns and operates two satellites, both of which were launched by Chinese rockets. AsiaSat 3, due to come on stream late next year, is to be launched by Russia's Proton system. AsiaSat 4 is scheduled for launch in 1999, about the end of AsiaSat 1's operational life.

The company's biggest customer to date is Star TV, the pan-Asian broadcaster owned by Mr Rupert Murdoch's News Corp, which has accounted for more than half of AsiaSat's revenues the past three years. Other customers include the governments of China and Pakistan, Hongkong Telecom and Singapore Telecom.

Under the proposed listing, 105.3m shares will be offered by Cable and Wireless and Citic. Half will be sold in the US and Canada; 42.12m will be placed internationally and 10.83m will be offered in Hong Kong. Outside Hong Kong, investors can opt for shares or American depositary shares equivalent to 10 shares.

Lihir Gold hedging in place

Lihir Gold, the listed group which is developing the large Lihir gold mine in Papua New Guinea, said it had completed implementation of the gold hedging programme required by its banking backers. Under the bank agreements, the company was required to ensure a minimum income from one-third of planned production between March 1998 and December 2002.

Lihir said the completed hedging programme would ensure an income of between US\$422 and US\$485 for about 1m ounces of gold over the period.

Nikki Tait, Sydney

APX, Copenhagen

Goldman buys into Yue Yuen

Goldman Sachs, the US investment bank, has made its second investment in a Hong Kong public company. It is to inject US\$55m into Yue Yuen Industrial, a sports shoe manufacturer, to buy new shares equal to 9.9 per cent of the existing outstanding share base.

The cash will finance Yue Yuen's plans to double its worldwide production capacity in China, Indonesia and Vietnam. The directors are to buy out their joint venture partners in Yue Yuen Industrial, thus giving the company an annual turnover of close to US\$1bn.

At the same time, Goldman Sachs is to invest US\$30m in Pon Chen Corporation, a Taiwan-listed company which will become a significant shareholder of Yue Yuen after the expansion. Goldman Sachs will take a seat on the board of Yue Yuen and work closely with the company on its strategic direction. Yue Yuen says the expansion will create economies of scale and enhance its competitiveness.

Goldman Sachs has made about 20 investments in public and private companies in Asia, including India. It started its Asian programme of direct investment in 1992.

Louise Lucas, Hong Kong

WH Smith agrees DIY disposal to Boots

By Christopher Price

W.H. Smith, the UK high street retailer, will this week announce the disposal of its half share in the Do-It-All chain to fellow retailer Boots, its partner in the home improvement stores group.

The company is expected to pay £50m (\$77m) to Boots as part of the deal. Do-It-All, which last year lost over £20m, is undergoing a restructuring involving the sale or closure of a third of its 150 stores.

The sale is expected to be announced on Wednesday, when Mr Bill Cockburn, W.H. Smith's chief executive, unveils a review of the group's entire business. The process was initiated following Mr Cockburn's appointment and followed the group's second profits warning in a year.

Boots made clear when announcing last week's results that it believed in "maximising value" from the DIY chain. The company said yesterday that the revamped stores were close to break-even and it believed the chain was in good shape to take advantage of the recovery in consumer spending and the pick-up in the housing market.

Boots' said last week its share of losses at Do-It-All rose from £6.3m to £10.1m last year after an 8 per cent fall in sales.

Smith signalled its intention to sell Do-It-All two weeks ago and it is understood that negotiations between the two co-owners have been continuing for a number of weeks. Under the joint-venture agreement, either party is obliged to offer the other first choice should one decide to exit.

It is understood that while

there were enquiries from several other interested companies, none was interested in buying more than half of the existing chain. It is also understood that closure of the chain was not contemplated because of the high cost. Analysts estimate such a move would cost about £200m.

The sale of Do-It-All will form only one strand of Mr Cockburn's review, which is designed to return Smith back to sustained profitable growth. The review is widely expected to focus on seeking a significant improvement in the performance of the group's 550 stores.

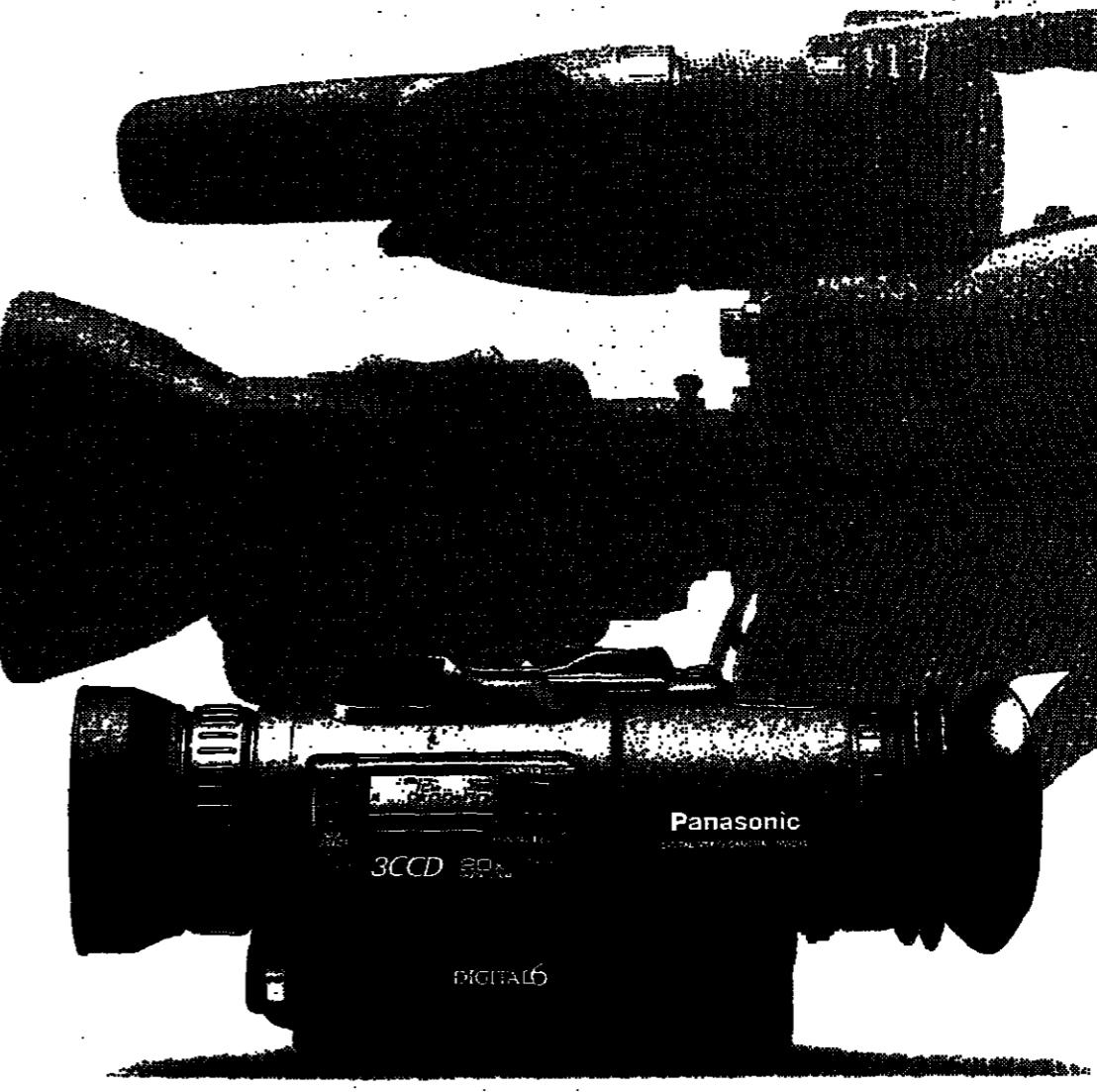
Around 1,000 redundancies are likely to be sought as part of a new efficiency drive. The company is also thought likely to close its London headquarters in Sloane Square. Analysts

are bracing themselves for a large one-off restructuring charge, including the £20m for Do-It-All.

Mr Cockburn is thought to be considering an overhaul of UK stores, including the closure of some underperforming branches, a revamp of sales formats, strengthening stock management and improving service.

The company intends to exploit its customer base more effectively. For example, of the 7.5m customers a week, only 62 per cent purchase something and the average spend is just £5. Its net retail margins at 4.5 per cent are less than half those achieved by Boots.

At its last results, Smith reported a sharp fall in interim pre-tax profits from £45.2m to £17.5m, despite a rise in sales to £1.85bn from £1.22bn.

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COMPANIES AND FINANCE

SES unveils plans for two digital satellites

By David Buchan in Paris and Raymond Snoddy in London

SES, the Luxembourg-based satellite company, has outlined plans for opening up a new orbital position with the launch of two further satellites to broadcast digital television channels across Europe.

The new satellites will provide capacity for 500 to 600 new television channels over Europe. Capacity is also being set aside to offer interactive business-to-business services.

Mr Romain Bausch, director

general of SES, said that because of the high demand from UK broadcasters it was possible that all of the 2(a) satellite, to be located at 23.2 degrees West, might be given over to English-language programmes.

British Sky Broadcasting, the UK satellite venture, has already booked 14 transponders.

For the first time SES has ordered a satellite from a European manufacturer, as well as from its usual supplier Hughes Space and Communications of the US, which will

launch 2(a) this summer. Matra Marconi Space (MMS), the Franco-British company, said last week it had been awarded a contract for a digital television satellite to be launched in late-1998.

At a press conference in Paris, Mr Armand Carlier, president of MMS, said this was the first time a European company had beaten Hughes of the US for an SES satellite contract.

He said it provided some consolation for the European space industry after last week's failure of the Ariane-5

rocket for which MMS was one of the contractors.

The two new satellites will give Astra 58 new transponders, each of which can be turned into eight to ten television channels using digital compression technology. They will be able to deliver pictures to 45 cm dishes, perhaps smaller in some areas.

Mr Carlier said the value of the MMS contract remained confidential at SES's request. But he claimed that because MMS would build both the satellite payload and platform, 60

per cent of the contract's value would be kept in-house, spread between MMS's French and British factories.

With the SES award, MMS had now won nine telecommunications satellite contracts in as many months, worth an overall \$1bn.

Mr Carlier claimed that MMS's launch into digital TV satellites reinforced the case for Matra's French parent, the Lagardere group, to be allowed to buy the state-owned Thomson group which is to be privatised later this year.

Newcrest abandons Normandy merger

By Nicki Tait in Sydney

The three-month war of attrition between Mr Robert Champion de Crespigny's Normandy group and Newcrest Mining, the Australian gold miner, came to an end on Friday when Newcrest admitted that a merger between the two companies "was not possible on an acceptable basis".

Instead, Newcrest said it would "pursue means by which it will realise the maximum value to Newcrest shareholders of its investment in the Normandy group". The company has spent about A\$470m (US\$365m) buying up a near-15 per cent stake in Normandy and a further 12.5 per cent in PosGold, Normandy's gold mining subsidiary.

Newcrest's raid on Normandy came in March when Minerva, part of South Africa's Anglo-American Corporation, sold out of the Australian group. At that stage, Normandy was planning a four-way merger between itself, PosGold, and two other gold mining companies in which PosGold has minority stakes.

But Newcrest used its PosGold holding to block the deal, saying it wanted to be included in the merger plan.

Negotiations between Newcrest and Normandy went nowhere, and last week Normandy dismissed Newcrest's final merger scheme - details of which were publicly disclosed - as "poorly-conceived, complex and unworkable".

On Friday, Newcrest confirmed that, if Normandy wanted to re-present its original merger plan, it would not block this a second time.

"That would be illogical," the gold miner commented.

However, it remained more circumspect about how it would dispose of the Normandy and PosGold holdings, saying only that the board would consider all options.

Normandy shares rose 1 cent to A\$2.16 on Friday and Newcrest gained 16 cents to A\$3.33. PosGold was 22 cents higher at A\$3.32. At these levels Newcrest is showing a hefty loss on its investment.

NEWS DIGEST**Usinor Sacilor sees downturn for 1996**

Mr Francis Mer, chairman of Usinor Sacilor, the French steel group, said results and sales in 1996 would be "clearly less good than [in] 1995 while remaining positive". It is clear that we will not achieve the results we forecast at the end of last year, he added.

He said results in the first half of 1996 will be lower than a year earlier, "which was exceptionally good". Sales in the first quarter fell 9.9 per cent from FFr20.87bn to FFr18.75bn (\$3.61bn).

AFX News, Paris

SMH upbeat on prospects

SMH, the Swiss watch group, said sales in the four months to April were higher than a year earlier. Mr Nicolas Hayek, chairman, said 1996 started off in a positive mode for all the SMH subsidiaries and brands.

SMH said 1995 operating profits fell from SFr386m to SFr272m (\$216m) and operating profit margins fell from 14.6 per cent to 10.3 per cent. Mr Hayek said SMH's investment policy over the past two years was beginning to bear fruit, but the company would only be able to confirm the first-quarter "boom" at the end of December.

AFX News, Biel

Giat seeks investor for Herstal

Giat, the loss-making French state-owned arms company, has said it is searching for an investor to buy some or all of its 93 per cent stake in FN Herstal, its Belgian subsidiary, or just to help keep the Liege-based company going. Herstal makes the famous FN rifle and has subsidiaries making the equally celebrated Browning and Winchester weapons.

But Giat is faced with a hard time in recent years. In return for assuming its debt, Giat took Herstal over for a symbolic FF1 in 1990. The Liege company is now undergoing further restructuring, whose cost Giat is now itself in no position to shoulder.

The government of the Walloon region owns the other 8 per cent of Herstal, but is no more inclined than Giat to pay the necessary redundancy money to lay off 20 per cent of Herstal's workforce over the next three years. If it cannot find a buyer for its Herstal shares, Giat said it was nonetheless interested in finding someone to "subscribe to a capital increase to fund the restructuring plan and to keep the business going".

David Buchan, Paris

Stone-Consolidated plans cuts

Stone-Consolidated, the US Stone Containers international newsprint arm, said its Ontario and Washington State mills would take further downtime this summer to reduce inventories. This means Stone will have taken 100,000 tonnes of newsprint out of the market since January 1 and 62,500 tonnes of ground wood specialities. Total capacity of all grades is nearly 2m tonnes, including the Bridgewater mill in England.

Robert Gibbons, Montreal

Venezuelan sale renegotiated

The Venezuelan government has renegotiated its contract with Lehman Brothers and SBC Warburg, the investment banks promoting the sale of up to a 49 per cent share in the telephone company CANTV. The sales commission has been cut from 4.5 to 2.4 per cent of gross sales receipts and the duration of the contract has been reduced to 12 months. The government had come under pressure to renegotiate the contract, which was seen as disadvantageous to government. The agreement is to be signed shortly and the first share package is to be offered late this year.

Ray Colitt, Caracas

Kone takes Krupp escalator arm in FM615m paper deal

By Hugh Carnegie in Stockholm and Michael Lindemann in Bonn

Kone of Finland, the world's third-largest lift producer, is to take over the escalator operations of Krupp in a FM615m (\$131m) deal that will leave the German engineering group with a 10 per cent stake in Kone.

Krupp is selling its 50 per cent share in Orenstein & Koppel escalators in exchange for a new issue of Kone's A and B shares that will equal 10 per cent of the voting rights of the Finnish group, making Krupp one of Kone's top three shareholders.

Kone already holds the other 40 per cent of the escalator company, O&K Rolltreppen. O&K has sales of DM270m (\$176.5m) and will expand Kone's escalator business into

one of the world's largest at a time when demand for moving stairs and walkways is growing much faster worldwide than for elevators. Escalators have to date accounted for less than 20 per cent of Kone's FM5.5b annual sales.

Krupp, which specialises in steel, heavy engineering and automotive technology, said the O&K Rolltreppen, although profitable, was too small to become one of the group's core activities.

The Essen-based group said it was still talking to "a number of interested parties" about the sale of the mining and construction machinery businesses of O&K. These loss-making operations were hived off from the escalator activities last December to prepare them for a sale which is expected to be completed later this year.

The O&K announcement coincided with Kone's results for the first four months of the year which showed a slump in pre-tax profits from FM43m last time to FM17m. Earnings per share slid from 39.98 to 36.87. Kone blamed low prices.

It also said its operations in Italy - where it was hit last year by deliberate false profits statements by local managers - resulted in losses. "The problems are deeper than we thought and rooting them out will require more time and greater cost than originally estimated," Kone said.

It gave no further details.

The Italian affair was previously said by Kone to have cost FM175m in fictitious profits over 1993, 1994 and 1995.

Despite the warning, Kone, third-biggest in the sector after Otis of the US and Schindler of Switzerland, said it was still

aiming for profits for the full year to be ahead of last year's pre-tax result of FM165m.

In the first four months, sales rose from FM2.65bn to FM2.6bn and the value of new orders jumped from FM2.1bn to 2.6bn.

Harvard sells its stake in Plzeňsky to Czech bank

By Vincent Boland in Prague

Harvard Group, the Czech fund management operation, has sold its stake in Pilsen's Plzeňsky, the country's flagship brewing group, in apparent proof of the adage that there is nothing a foreigner can teach a Czech about beer.

Harvard, run by the Bahamas-based Czech businessman Mr Václav Koženy, sold the 31.8 per cent it had in the brewery, which it held in association

with the investment group Stratton, to IPB, the third-biggest Czech bank, after a dispute with other shareholders about how to develop Plzeňsky's marketing drive.

The transaction takes the stake in the brewer held by the bank and its investment funds to 53.2 per cent. No price was disclosed for the deal.

Pilsen's maker of Pilsner Urquell, the premier Czech beer, has a market value of about \$190m and is the largest

and best-known brewing group in the Czech Republic.

Harvard and Stratton had sought to introduce Mr Christopher Topper, a former executive with the US brewer Anheuser-Busch, to boost Plzeňsky's marketing operations and exploit its premium brand image abroad.

But Mr Varley's arrival was firmly resisted by other shareholders and by management. Both sought to maintain the brewer's Czech character and

its dominance of the local market, of which it has a 17 per cent share.

With one or two exceptions, notably the alliance between Bass of the UK and Prague Breweries, the Czech brewing industry has proved resistant to "foreign" influence.

On Friday, Mr Vladimir Perina, the brewer's chief executive, said: "We think the new, strong investor will support our long-term strategy." Stratton, owned by Mr Mich-

ael Dingman, a neighbour of Mr Koženy's in the Bahamas, did not own a direct stake in the brewery. An agreement among Plzeňsky's shareholders, to which Harvard and IPB are parties, limits trading in most of its shares to a small group of local shareholders.

Mr Daniel Arbes, chief executive of Stratton, acknowledged that its joint strategy had not worked out. "We struggled hard but found it very tough going," he said.

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Stratton, owned by Mr Mich-

THE WEEK AHEAD**DIVIDEND & INTEREST PAYMENTS**

■ TODAY		■ WEDNESDAY JUNE 12	
Abbey National Treasury Gfd	FRN 1995 \$13.66	Portman Bldg Scy FRN 1997	Delphi Sp
		\$160.52	East Rand Gold \$0.65
Allied Signal \$0.225		Rio Tinto Un Ltn 2014	Elys (Wimbledon) 30p
Anheuser-Busch \$0.44		\$14.46	Fairay 5.45p
Bentall 1.62p		Sabre Int (No 2) Ser N Var Rate	Free State Cons \$0.45
Bloomsbury Publishing 2.72p		Nts 1994 1237.77	Gracechurch Mortgage Fin (No 2) Class A Mtg Bldk FRN 2028
Cordis Auto Purchasables No 2		Do Ser C 1234.05	\$1130.42
Claris (FR) 1997 £169.57		Sakura Fin 51/2% Gross Pt	Do (No 3) 2029 E1214.93
Do Mezzanine FRN 1997		R0.055	Do (No 1) 1998 \$116.31
£195.83		Standard Chartered Und Prim	Do Mezzanine FRN 1998
Davis Service 6.27p		FRN (Ser 3) \$296.77	\$496.63
Dentron 1p		Sumitomo Bank Cap Mds Gtd	Guangdong Dev \$0.05
Dewart Valley 3.77p		Fxd FRN 2003 \$3058.11	Holt (Joseph) 43p
Dun & Bradstreet \$0.66		Sumitomo Heavy FRN 1998	Hongkong & Shanghai Banking
Elspost 2.50p		£26344.0	Prim FRN (Ser 2) \$7.67
Exxon \$0.78		Tata & Lyle Int 51/2% Bd	Int Energy 2.9p
Fox's Sports Seecd FRN		2000 155.00	Lloyd's Bank Sb FRN 2004
1997 Y23145.0		Tesco 8% 2003 24.0	£34.38
Full Bank Int Fin Ppr Sb FRN		Utd Technologies \$0.56	Manpower \$0.07
\$1542.21		Upsala (City of) FRN 1998	Pacer Systems \$0.035
General Electric 10% Nts Jun		£228.70	Ragby Gfd FRN Dec 1997
General Motors \$0.40		Utility Cable 0.27p	\$14611.39
Grace (WF) \$1.25		Warner-Lambert \$0.69	Tokyo Elec Power 101/2% Nts
Hiltex 1995 13/16% Perm		Wigmore Property Inv Tst 0.3p	2001 CS105.0
IBM 2.24p		Y211633.0	TriNova \$0.20
IBM 3.05p		Templon Latin America Inv Tst	Ventur Inv Ltr 2.82p
Investors Capital Tst Rest/Vtg		0.35p	Weir 5.3p
1.35p		VTI 1.75p	
Do Units 1.35p			
LIBOR 3p			
LIBOR 3.425			
National Australia Bank Sb Var			
Rate Nts 2000 £165.53			
Nat West Bank Var Rate Cap			
Nbs 2009 £170.15			
Nippon Chem-Con Gtd FRN			
Nippon Chem-Con G			

FINANCE

Hush-hush world of big portfolio shifts

If you wish to restructure your assets, it is a good idea to carry it out incognito, writes Norma Cohen

In the financial markets, secrets spread faster than the common cold.

So a fund manager wishing to change the balance of a multibillion dollar portfolio faces a big problem: how to do so without a leak of news, or even mere rumours of a switch, which could move market prices against the fund?

The conventional wisdom is that rebalancing a portfolio will cut one to two percentage points of return in the year it is effected. The challenge is to cut that cost significantly.

Big portfolio shifts are still not common in the UK, but the trend is growing.

Earlier this month, Mercury Asset Management won the mandate to restructure up to \$10bn in assets of Equitas, the rescue vehicle of Lloyds of London, the insurance market.

In May, the £2bn Lucas Pension Scheme announced that it had completely restructured its asset mix over the previous two months, a move which had been almost completely under-told by the markets.

In the US, several large internally managed schemes, including IBM, Rank Xerox and GTE have restructured their portfolios over the past two years.

A remarkable US switch was last year's move by Fidelity's \$60bn flagship mutual fund, Magellan, to cut its shares in technology companies, which at one time comprised over 40 per cent of the portfolio, to a mere 5 per cent. It also aroused controversy, as Magellan's then fund manager, Mr Jeffrey Vinik, made the switch while publicly singing the merits of the sector and one of his high-tech holdings.

Helping execute these shifts is a growing business for a handful of fund managers and investment banks which have begun to specialise in the field.

"When we did the first few, we thought it was a one-off business," says Mr Graham Dixon, director at MAM and a

member of its quantitative and derivatives team, which has begun to specialise in portfolio transitions.

So just how can you change holdings efficiently? It requires careful planning, good market intelligence, and an ability to throw people off the scent — though most fund managers would eschew the tactic of taking a market up while selling it down.

Mr Alan Rubenstein, who runs the Lucas fund, says that it took over a year of preparation to get his shift in place. At the heart of the reorganisation was a reassessment of the fund's liabilities, which required a move into index-

FUND

MANAGEMENT

MAM's Mr Dixon argues that pension funds would be well advised to work with an outside manager, because a change in activity by an internally managed scheme's own trading desk attracts attention.

At MAM, an active participant in the markets on a daily basis, a huge portfolio shift can be easily concealed among the trades of numerous clients, Mr Dixon says.

But MAM also works closely with investment banks and ultimately will choose one or two to take on a client's portfolio for programme trades.

MAM has also worked with other fund managers, particularly with BZW, Barclays Global Investments in portfolio switches. BZW-BGI has also made a specialty of managing portfolio transitions and the two firms have been able to arrange stock swaps to their mutual advantage.

Having determined which asset classes are to be bought and sold, MAM minimises the cost of any move in prices against it by hedging in the future markets. Goldman Sachs and Morgan Stanley similarly used derivatives to smooth the disposition of the Lucas portfolio.

However, Mr Dixon concedes that orderly disposal of some portions of a portfolio remains problematic. For instance, index-linked gilts, an asset class increasingly in demand from pension schemes, are relatively illiquid, and there are no futures contracts available to hedge a position.

But it is unlikely that MAM, BZW-BGI, Goldman Sachs and Morgan Stanley will dominate the market for good ideas. Already, Mr Dixon says, there are signs that others are seeking to cash in on the rising demand for transitional management of investment portfolios.

"It has improved a lot over the past three years," he says. "It's getting highly competitive and it's getting very slick."

Haller reluctantly in the limelight

Ric Haller, head of emerging markets at Deutsche Morgan Grenfell, likes to keep out of the limelight. Last week though, after he hired a team of 44 executives from ING Barings' Latin American equities operation, he found himself at the centre of a controversy about predatory hiring practices. He did not like it. It was the talk about huge financial packages for the newcomers that annoyed him. "I've got a reputation for running a tight ship, on good terms, and expects to keep up a relationship with ING Barings — though the details are still to be negotiated.

Just as Haller was ducking the limelight, Michael Howell, the emerging markets strategist who joined the exodus from ING Barings last week, was setting out to prove that life really does begin at 40, writes Richard Lepper.

While some of his colleagues appear to have been tempted by DMG's financial packages, Howell's decision had nothing to do with money. Together with Angela Cozzani and Mark Clayton, the two other members of ING Barings' global strategy unit, he is setting up a consultancy producing research on global capital flows and liquidity. The team is leaving on good terms, and expects to keep up a relationship with ING Barings — though the details are still to be negotiated.

Howell, who started as a corporate planner with Blue Circle, quickly gravitated to research, joining Lain & Cie in 1989. Haller and a 60-strong team of traders moved on after Deutsche Bank had taken it over.

The ultimate test of DMG's latest expansion will, Haller says, be the strength of the newly enlarged emerging markets equity business adds to the company's corporate finance and investment banking operations. The hiring may not be over yet.

He says lifestyle was one reason for seeking a change. But his decision was also influenced by business considerations. Fund managers, says Howell, are suffering from "information overload" and

FACES

Going it alone: Howell strikes out

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increasingly value independent and more focused research. The "flow of funds" approach developed by Howell and his team is also, he says, finding favour among some US fund managers who dismissed it "out of hand" in the mid-1980s.

But the 56-year-old actuary, whose job security was a precondition of African conglomerate Sanlam unbundling its insurance business, has kept quiet about his unlikely role in the vanguard of black empowerment.

Nail could soon acquire Sanlam's remaining stake in the insurer. If that happened, Sanlam's right to appoint the managing director would fall away. Smith would then have to rely on his fellow directors at Nail to fend off criticism from black staff and trade unions that Metlife's all-white senior management have yet to appoint a black staffer to a top job.

Millennium Man meets his match

Has Sir Peter Levene finally met his match? The celebrated scourge of civil service inefficiency and reputed saviour of London's Canary Wharf property development has just one week in which to help salvage the British capital's Greenwich Millennium exhibition before the entire 250m project is abandoned, writes Christopher Price.

Sir Peter, 55, was called in by the Millennium Commission in February to put together a business plan for the exhibition, and to find a commercial partner for the project.

He first came to prominence in 1985, when he left the defence-related business of which he was chairman, to become chief of UK defence procurement. The poacher-turned-gamekeeper is reputed to have saved the government up to £1bn through the efficiency measures he introduced.

Already well known in the City, he returned to the square mile in 1990 as deputy chairman of Wasserstein Perella, the US investment bank. But within a year, he was back in the headlines — first, as chairman of the London Docklands Light Railway, then as the prime minister's efficiency adviser, and soon afterwards masterminding the rescue of the bankrupt Canary Wharf.

Sir Peter's forthright style, corporate contacts and deal-making reputation were deemed ideal for knocking the Greenwich project into shape. However, problems of funding and questions over the size and viability of the project appear to have been insurmountable.

Last week, Sir Peter was at the side of Michael Heseltine, as the deputy prime minister cajoled the businessmen to "make a leap of faith" for Britain and back the Greenwich project. They have until the end of the week to respond.



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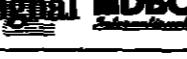
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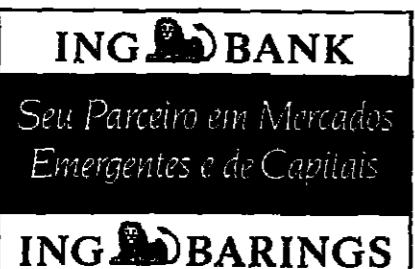
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March, 1996

JPV 10/6/96



ING BARINGS

FINANCIAL TIMES

MARKETS

THIS WEEK

Global investor / Richard Lapper

The fruits of privatisation

When the London market closed on Friday, the shares of Port of Ports Authority settled at 605p, more than five times the price at which they were issued when the port was privatised by the British government four years ago.

The stock of AMS Mikro Systeme, a microchip maker sold by the Austrian government in 1993 and 1994, ended last week at Asch1.184, compared with an issue price of Asch1.336 for the first tranche.

And investors lucky enough to buy shares in Outokumpu – when a part of the Finnish mining company was initially sold to the public in 1988 – have seen the value of their holdings rise cumulatively by about seven times.

As a new publication* on privatisation in western Europe points out, however, such out-

standing performances are the exception rather than the rule.

Its authors, Mr Richard Davidson and Mr Markus Rögen, analysts at Morgan Stanley, the US investment bank, say that “relative to their own domestic markets, privatisation issues have failed to shine in terms of capital appreciation.”

Although UK issues have generally held their own against the rest of the domestic market, only in Austria have privatised share issues consistently managed to outperform (see table).

Taken as a whole, the investor has been a loser more often than he has come out on top,” says the report, which updates an earlier study completed in 1993.

Not surprisingly, investor enthusiasm for privatised

issues is waning. As a result, governments are becoming increasingly sophisticated in the way they sell privatised issues, especially to retail investors.

For example, simple derivatives giving downside protection to retail investors – such as those used in recent Spanish sales – are likely to become a more common feature of privatisations.

But with European Union governments still battling to reduce fiscal deficits and indebtedness in order to meet the Maastricht criteria for monetary union, the pace of government sell-offs is unlikely to slacken.

Western European governments have raised some £79m in the past three years alone, with sales climbing to a high of £3.6bn in 1994. Overall, more

than \$186bn has been raised since 1981, when Mrs Margaret Thatcher launched the UK government’s privatisation programme.

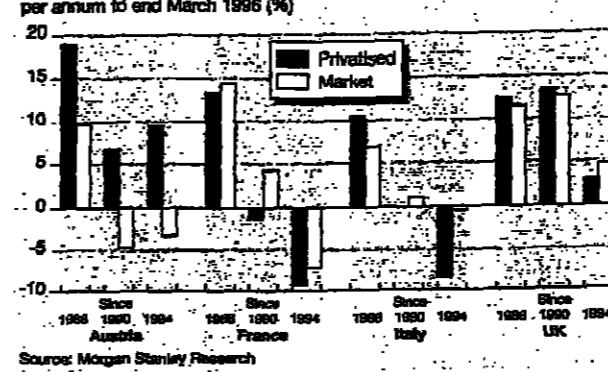
The UK accounts for more than half that total, with sales amounting to \$86.7bn, but other governments are now more active. Italy was the largest privateer last year, with sales amounting to \$4.96bn, while France sold assets worth £11.75bn in 1994.

The report suggests that assets worth up to \$300bn – an amount roughly equal to 15 per cent of European gross domestic product – could be sold off over the next five years.

Portugal, which has already sold off nearly \$5bn in assets since 1989, has the potential to sell companies whose value exceeds the capitalisation of its

Selected European privatisations performance

Total compound return per annum to end March 1996 (%)



Sources: Morgan Stanley Research

FINANCIAL TIMES MONDAY JUNE 10 1996

ING BANK

At Home in Emerging
and Capital Markets

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Total return in local currency to 6/6/96

	US	Japan	Germany	France	Italy	UK
Cash	0.10	0.01	0.07	0.07	0.16	0.12
Week	0.45	0.05	0.20	0.22	0.75	0.58
Month	5.75	1.05	4.49	5.55	10.88	7.00
Year						
Bonds 3-5 year	0.24	0.45	0.21	0.21	0.3	0.24
Week	0.78	1.45	1.07	1.21	1.51	1.54
Month	4.05	2.77	8.59	11.88	20.91	8.43
Year						
Bonds 7-10 year	0.57	0.54	0.53	0.54	1.26	1.28
Week	1.5	2.15	1.51	2.89	2.18	2.18
Month	2.59	2.78	3.41	3.42	28.02	7.51
Year						
Bonds 10+ year	0.4	0.0	1.1	1.2	-0.1	0.2
Week	5.1	0.7	2.8	1.0	0.3	0.3
Month	28.2	32.0	18.5	14.1	5.2	10.9
Year						

Sources: Cash & Bonds - London Brokers. Equities - FTSE International Limited. The FTSE/S&P Actuaries World Indices are jointly owned by FTSE International Limited, Goldman Sachs & Co., and Standard & Poor's.

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Entirety of privatisations will be made up by utility companies.

Research shows Europe's privatised companies have historically traded on p/e's of 14.8 against an average of 17.3, while dividend yields at present are an average 4.1 per cent for privatised companies against an average for the market as a whole of 3.1 per cent.

The increased weight of bank and insurance stocks will make the market more sensitive to changes in interest rates. But utilities, transport and telecoms companies tend to produce reliable streams of earnings which should ease uncertainty. In short, privatisation is making western Europe's equity markets bigger and more liquid, but also more boring.

*Privatisation: The Second Tranche by Richard Davidson and Markus Rögen, Morgan Stanley.

Compiled By AFX News

COMPANY RESULTS DUE

International calls lift Singapore Telecoms

On Wednesday, Singapore Telecommunications is expected to report full-year net profits to March of about \$1.55bn (\$1.1bn), up from \$1.33bn a year earlier, or an increase in international calls and a wider cellular subscriber base.

Revenue from international calls is expected to match, or even exceed, the previous year's growth rate of 7 per cent, despite the impact of a series of rate cuts, including one round in September 1995 and another in January 1996.

The company is expected to report a 20-25 per cent increase in international call volumes, compared with a 20 per cent

rise a year earlier, with rising penetration rates and minute usage offsetting rate reductions.

International direct dial call volume was projected to rise 25 per cent to 551 million, against an average 18 per cent fall in IDD charges to \$1.95 per minute, said Ms Malone Wong, analyst at GKゴン Research.

“This is good, since SingTel will be feeling the full-year impact of rate cuts but will maintain the growth in international revenue,” Ms Wong said.

Singapore Telecom's international rates fell by a weighted average of 5.7 per cent in the year to March 1996, analysts said.

Mr Lawrence Lye, analyst at EZW-Pacific Union, said such cuts did not stimulate significant volume increases, because of the inelastic nature of the international call market.

Mr Lye forecast the company's international revenue

would grow 8 per cent to \$9.15bn in the year to March 1996. “The revenue increase will be backed by organic growth,” he said, adding that the growth in international traffic would come from calls to OECD nations and China. AFX Asia, Singapore

the rest of Europe and the US, while consolidated net earnings would also be higher.

Strongest sales growth in the first 16 weeks of the year was in Portugal and the Czech Republic, where sales were up 40.4 per cent at €1.62bn. In local currency terms, sales in Portugal rose 30 per cent while sales in the Czech Republic more than doubled, Ahold said. The company provided no sales

growth already reported, leading to wider gross margins across the board.

They also expect the US Federal Trade Commission to require Ahold to dispose of some of its Edwards supermarkets in southern New England before it will approve the acquisition of Massachusetts-based supermarket chain Stop & Shop.

Ms Claessen said such regulatory action could postpone the date of the takeover until after July 31, after which time Ahold has said it will raise its bid for Stop & Shop shares by \$1 to \$24.50 a share. “A postpone-ment will cost Ahold about \$120m, with a virtually unchanged dollar/guilder exchange rate having a negligible impact, while Dutch sales rose 3.1 per cent to €1.4bn, the company said.

Ahold is expected to announce details shortly of a share issue to finance the \$2.9bn takeover. Ahold said in

March when it announced its bid for Stop & Shop that it

expected 1996 earnings per share to increase from the 1995 figure of F1.374. Analysts lowered their 1996 earnings per share forecasts for Ahold by about 20 Dutch cents to reflect the effects of the acquisition.

AFX News, Amsterdam

■ Unigate: The UK food processing and distribution group, is expected to report today moderate growth of underlying profits masked by a raft of exceptional factors. Pre-tax profits for the year should be about £120m (£135m pre-excep-tions), against £114m a year earlier before £25.1m of restructuring costs. Disposals will lift latest profits by £234.4m offset by a charge of £39.5m for exiting restaurants.

Underlying performance will have benefited from an increase of about £15m in food profits, thanks to French acquisitions, higher butter and

milk powder prices, and organic growth. The Win-canton distribution business should be modestly ahead. The dividend should be up by about 6 per cent at 20p.

■ Northern Foods is likely to report tomorrow a slip of about £5m in underlying profits to £125m (£18m). Year-earlier figures were disturbed by £103m in provisions. Prepared foods should be up modestly, but underlying dairy profits will be down.

The dividend should be up about 2 per cent to 9p.

■ Electrocomponents is expected to report pre-tax profits between £95m and £98m (£149m) when the UK distributor of electronic and electrical components reports its annual results today. This would equate to a 15 per cent rise on the previous year if profits come in at the top end of expectations.

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Global Coordinator

ING BARINGS

May 14, 1996

year, ensuring substantial demand for new issues.

Several east European companies are lining up substantial equity issues for the second half of this year, after six months of strong international demand but a shortage of supply.

This has lifted secondary market prices, with the Warsaw market up about 50 per cent in dollar terms since the start of the year and the Budapest exchange about 80 per cent higher.

Global emerging market funds have been driving the growth, but the rise has been less dramatic and more sustainable than it was two years ago,” said Mr James Oates, equity analyst at UBS in London. “At that time, most of the money was coming from hedge funds which were more volatile and less committed to the region.

Several new equity funds dedicated to the region were launched in the first half of the

Budapest and Luxembourg stock exchanges.

“Cofinec is a very attractive proposition, not necessarily from the prior point of view but because of its outlook,” said Mr Spencer Jakab, equity analyst at CS First Boston in Budapest. “It’s in a growth industry and is a regional company, with western management producing in three central European countries.”

The company is regarded as one of the region’s first home-grown multinationals. Much of its turnover of \$135m last year came from two Hungarian operations, but last month it opened a plant in Poland, its first greenfield project, which is expected to boost turnover to about \$20m.

In what will be one of Hungary’s and the region’s largest ever equity issues, APV, the privatisation agency, is expected to launch an offering for about half of TVK, Hungary’s largest chemical company, APV, which is being advised by CS First Boston, hopes to be attractive to investors.</p

MARKETS: This Week

NEW YORK By Tony Jackson

Inflation is back on the agenda for US markets this week and there will be a lot of data to chew on. While the response of the bond market is predictable, the equity market is a different matter.

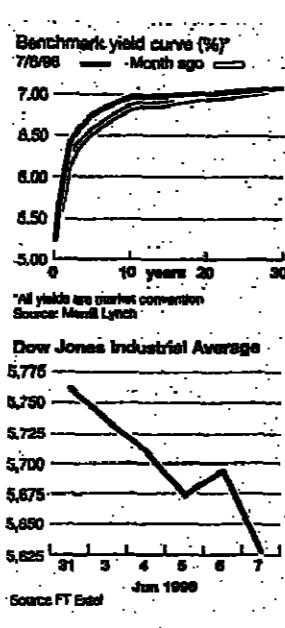
Last Friday, strong jobs data for May sent the long bond yield back up over 7 per cent. The Dow, however, lost 80 points and then recovered entirely, suggesting equity investors remain torn between the inflationary threat and the growth promise.

Tomorrow brings the Producer Price Index for May and consumer credit figures for April. The PPI is expected to be roughly in line with April's 0.4 per cent increase, with a range from 0.5 per cent to a slight fall. The rise is expected to be less excluding food and energy.

The other inflationary shoe drops on Wednesday with the May Consumer Price Index. This is expected to be in line with the PPI, suggesting no particular pressure on manufacturing margins.

But the key figure of the week, by Salomon's reckoning at any rate, will be May retail sales on Thursday. After a drop of 0.3 per cent in April, Salomon expects a rebound of 2.0 per cent in May (others expect less), with the strongest element a 3.1 per cent rise in motor vehicle sales.

Friday brings more news from the manufacturing front,



* All yields are nominal, converted
Source: Merrill Lynch

Dow Jones Industrial Average

Source: FT Estd

Jan 1996

Source: FT Estd

MARKETS: This Week

EMERGING MARKETS By Gavin Gray

Dadas scandal slows Slovenia

Until mid-March, the Ljubljana stock market was rising comfortably, if comparatively quietly, in the wake of Warsaw and Budapest with a gain of about 14 per cent this year; but its calm was illusory.

Having peaked at 1,589.18, the SBI index of Slovenian equities went into free-fall when the country's securities market agency launched an investigation into Proficia Dadas, the fund management arm of the brokerage house, Dadas, alleging that it was using its four funds to manipulate stock prices.

This was the first investigation of its type: the SBI dropped 37.5 per cent in two months, reaching a low of 994.42 in mid-May. There has been a recovery since, but the Dadas scandal figured again last week when the SBI dropped by 4.9 per cent on Thursday to 1,054.67 on Friday.

Some professional accountants are positive. "This is all probably good for the long run," says Mr Gregor Kastelic, an equity analyst at Creditanstalt. "This market is mainly driven by brokers investing on a very short-term basis. For foreign investors, it is good to know that there is an institution in Slovenia that performs a monitoring role."

Since Dadas is not only the top broker in Slovenia, but also one of five companies listed on the exchange's A quotation,

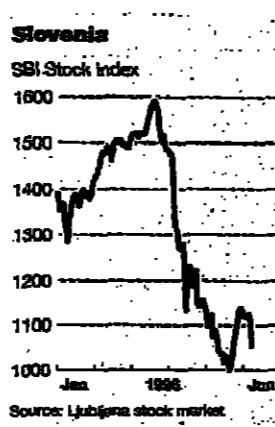
the scandal has touched the heart of the financial establishment. Its shares accounted for 23 per cent of equity turnover last year. The agency's investigation is not complete and uncertainty prevails.

It was not always thus. Ljubljana, the capital of Slovenia, was one of the first cities in eastern Europe to open a stock exchange, and this year the market had begun to attract the attention of international investors.

Their interest coincided with the listing of the first of over 100 industrial companies privatised through public offerings. These included most of the large manufacturing companies and exporters that were the foundation for 5 per cent economic growth rates in the country in both 1994 and 1995.

Slovenia was the most developed republic in Yugoslavia and became an independent country in 1991 after a short war. GDP per capita was estimated at about \$7,000 in 1995, nearly double the Hungarian level and not far behind Portugal.

The equity market suffered in 1994 and 1995 because the central bank issued large volumes of short-term paper which drained liquidity. Lack of legislation has been another problem. Although a securities law was introduced in 1994, the government has failed to introduce legislation on mergers and acquisitions, although this



had yet begun trading. Of the 12 companies on the main market and six stocks traded over the counter, there was a plethora of financial institutions and companies in the service sector; trading was often very light and prices could move sharply with the sale of a handful of shares.

"We have had a very sophisticated computer system for some time and dematerialisation, but simply not enough stocks to trade," said Mr Drasko Veselinovic, president of the exchange.

The ice broke in January, when Kolinska, a food processor, elected to have its shares quoted on the exchange's B listing. OTC trading has also begun in Sladkorji Ormoz, a sugar mill; Slovenijes, a diversified trading company; Komps Hotel Kratjaka Gora, a ski resort; Lesnina Emmi, a manufacturer of wood products; and Mercator, a supermarket chain. With consolidated sales of just under \$1bn, Mercator is now by far the largest company traded on the market.

Two more companies are due to begin trading this week. Drogja, a producer of tea, coffee, spices and other food products, will join Kolinska on the exchange's B listing. Some 40 per cent of its stock was issued in the public offering. Pinus, a chemical producer, will begin trading on the OTC market. Mr Kastelic expects another 15 companies to come to the market in the second half of this year.

There has been one serious attempt to sell Slovenian equity to foreign investors. In 1994, the European Bank for Reconstruction and Development (EBRD) and institutional investors took a minority stake in SKB Banca, Slovenia's second largest bank, and still the largest company on the main listing with a capitalisation of \$80m. The shares trade off-shore in the form of depositary receipts issued by Merrill Lynch.

This year, the newly-traded privatised companies have held their price levels because there has been little selling by retail investors. But since most of these stocks are traded over the counter, this has not been reflected in movements in the SBI stock index.

At the end of last year, none of the privatised companies

were promised two years ago.

INTERNATIONAL BONDS By Carter Middlecamp and Samer Shandak

Revival seen in sterling sector despite political uncertainty

The euro-stirling sector – until recently the Cinderella among eurozone currencies – has undergone a veritable transformation in recent weeks.

"We saw sterling emerge from being a peripheral currency on the edge of Europe to one of the busiest sectors [last week]" said a syndicate manager of a UK house.

Last week's offerings were a mixed bag of UK institutional-targeted deals – such as a £250m 10-year offering for PowerGen or a £200m 10-year offering for Northumbrian Water – and European retail offerings – including a £150m 24-year transaction for Toyota Motor Credit Corp and £100m of 24-year bonds for Rabobank Nederland.

Volume last week amounted to £1.2bn of new bonds, nearly double the £750m issuance of the previous week – which itself was significantly more than usual.

In the year to date, some £2.9tn of sterling bonds have been issued in the international bond market, including asset-backed and equity-linked paper, numbers published by EuroMoney Bondware show. That's nearly as much as last year's total of £21.4bn.

"There is a growing perception by borrowers in the euro-stirling market that the investor base does not just consist of UK institutions," said another syndicate manager.

"We have seen a lot of continental European demand on the back of the stronger currency and that's inspired very aggressively priced, arbitrage-driven deals which UK institutions don't usually buy," he added.

European retail investors, on the other hand, are more name and currency-sensitive but care less about yield spread and are willing to buy relatively tightly-priced issues, he said.

Some borrowers that were deliberately absent from the market for several months now feel the time is right to return.

CCCI, the financing arm of Crédit Immobilier de France, had planned an issue earlier this year but changed its mind in favour of D-Marks at the last minute.

It has recently revived its initial plans and will raise around £200m in the coming weeks.

The deal is not arbitrage-driven, but "market conditions are good," said Mr Arnaud Scuderoni, financial director of CCCI, "there is strong demand".

Mr Scuderoni is also attracted to the sterling market because he feels the "investors are sophisticated... which should allow [CCCI] to achieve a more efficient pricing" than usual.

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TELECOMMUNICATIONS IN BUSINESS

Tough decisions for telecoms managers

Radically new products and services are on the way which promise better ways of doing business. Selection will become even more difficult for telecoms executives. Alan Cane reports

The telecommunications business provides incontrovertible proof of the effectiveness of competition in forcing down prices and broadening options for customers.

Telecoms managers working in countries where telecoms markets are open are spoilt for choice compared with their counterparts in more restrictive regions. In the past 12 months, a number of events have conspired to widen that choice still further, while making choice and selection even more complicated for telecoms executives.

First, a global pact on telecoms liberalisation could be in place by the beginning of 1990 after the 83 nations involved in World Trade Organisation talks decided to postpone the deadline for agreement until February next year. According to the US-based Institute for International Economics, an accord could save telecoms customers in developed and developing countries more than \$1,000bn over the next 12 years in lower charges, better service and more advanced technology.

January 1, 1990, is also the date when telecoms services and infrastructure across the European Union should be opened to full competition, with the prospect of lower prices for all European customers. At present, a national long-distance call in Germany, where Deutsche Telekom retains its monopoly, costs 78p for three minutes, while in the fully liberalised US and UK the same call costs 37p and 19p respectively.

Second, President Bill Clinton opened the floodgates for change in the US when he signed the 1986 Telecommunications Act, a document which tore down the competition barriers between local, long-distance and cable television operators. Every residential and business user of communications will be affected by the legislation which essentially allows more companies to compete in more US telecoms markets.

Immediate responses to the threat of increased competition have been seen in the mergers of SBC Communications and Pacific Telesis and Bell Atlantic and Nynex, all "Baby Bell" regional operating companies.

MPS, a US-based business telecoms operator, says: "The challenge for users will be to decide which services and features are most important to them and then to identify the provider that can best serve their needs. Providers will differentiate themselves by emphasising the strengths they can offer such as the benefits of diversity among suppliers, back-up protection through redundancy or simplicity through streamlined and consolidated service offering."

National Utility Services, an international cost control service, noted that competition drove international call prices down 33.7 per cent last year in the US but that customers were not necessarily experienced enough to take full advantage of the decline.

"As competition continues to force prices down, both consumers and suppliers are looking for simpler charging formulas, such as pegging costs to a flat rate rather than varying charges based on the time of day."

"There was a strong push towards individually negotiated contracts. Although in the past this was only open to large users, smaller business users who may only have a \$3,000 spend are now able to capitalise on these arrangements," says the cost control service.

It warns: "The bottom line is that while most end-users are able to negotiate their contracts, few fully understand the ground rules or how to negotiate the most successful contract terms and conditions."

Third, in a sharp change of

strategy, some of the world's largest telecoms operators, among them AT&T of the US and British Telecommunications of the UK, are offering low-cost access to the Internet, the global network of computer networks.

Most telecoms operators offer business Internet access already; the significance of the new move lies in the implication that the operators are taking seriously the threat of Internet telephony - voice communication across the Internet - which could seriously damage their long-distance and international revenues.

In the longer term, multi-billion-dollar satellite projects are in progress which by 2000 could see business people able to keep in touch at reasonable cost using a mobile phone from virtually any point on the Earth's surface. One of the consortia planning such a system, the London-based ICO Communications, expects initial handset prices of about \$1,000 with calls charged at \$1 or \$2 a minute.

In addition to developments designed to cut the costs of telecoms, radically new products and services are available or in the pipeline which promise new and better ways of doing business. Telecoms operators, faced with declining growth in revenues from traditional services, are anxious to promote these new products and persuade their customers that price alone is not the best criteria for choosing a supplier.

The products include videoconferencing - which has now fallen dramatically in cost, with the availability of powerful semiconductor chips and computer integrated telephony - computer databases linked to telephone systems - which has found its most immediate use in call centres.

These complex applications require transmission systems capable of delivering substantial quantities of data which explains the current interest in integrated services data network (ISDN) lines and frame relay technology.

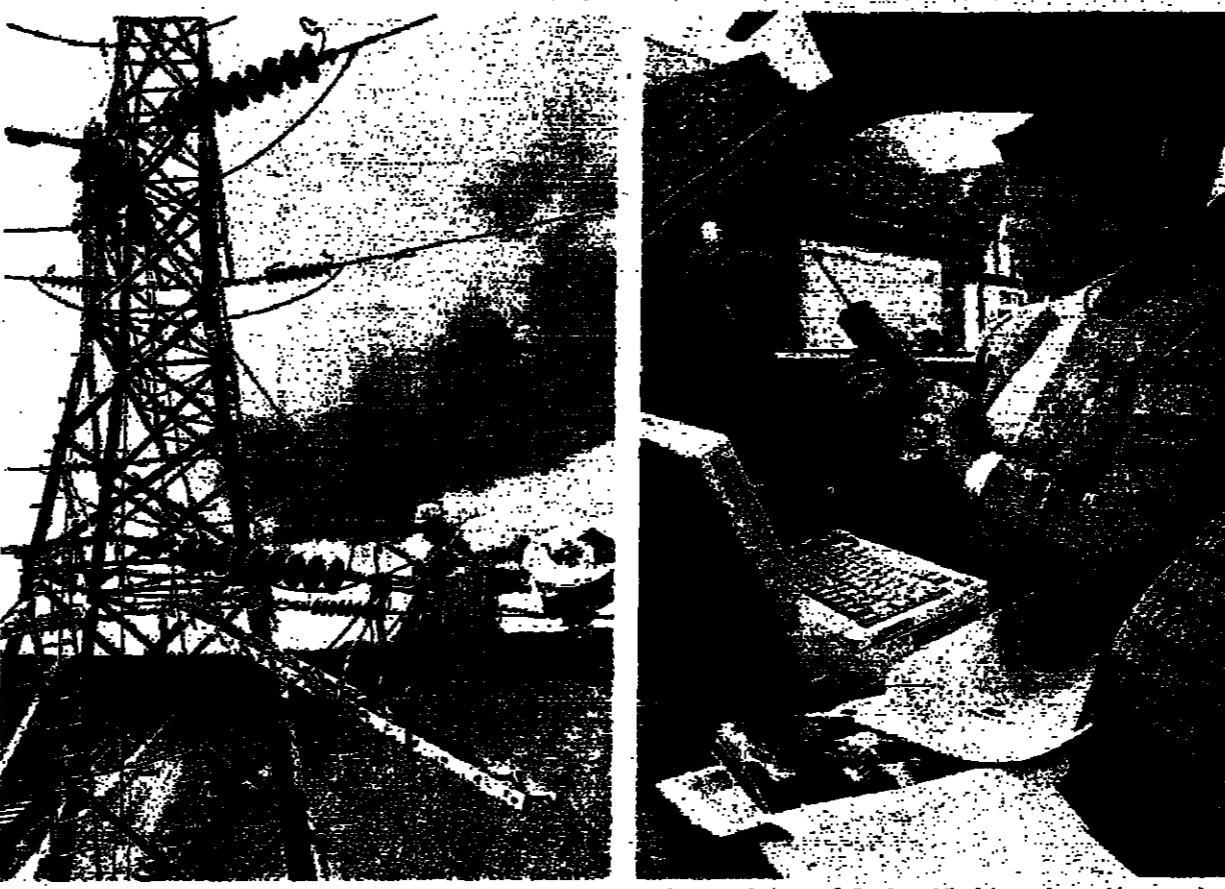
Most businesses, however, are at an early stage in evaluating these possibilities. According to a study in the UK by the management consultancy Newburn Consulting, telecoms is seen as integral to business development by most companies but remains a cost to be controlled and reduced wherever possible. Newburn found that six out of 10 companies believed their telecoms strategy was designed to "improve customer service", while four out of 10 believed their role was to "create cost efficiency improvements".

It identified four kinds of telecoms users:

- First: telecoms-propelled organisations which place a high value on telecoms and IT and spend commensurately;
- Second: frustrated visionaries with fine strategies but no funds to back their ideas;
- Third: reluctant investors who place little value on telecoms and IT but are still prepared to make big investments when necessary; and
- Fourth: the unconverted who neither believe in, nor invest in, telecoms.

Newburn's analysis of telecoms strategy in the companies it examined is particularly interesting. It suggests that companies are facing the same kind of dilemmas over strategic investment in telecoms that they faced in computers and information technology in the 1980s: "On the evidence of this survey of leading users of telecoms and information technology, less than half have strategy and investment plans and budgets aligned in pursuit of consistent business goals."

Newburn says that what a company decides to be important in terms of its telecoms strategy and how it spends its telecoms dollars do not always match.



Torch Telecom engineers wrap fibre optic cables around overhead electricity lines. Torch serves businesses in Yorkshire and Humberside

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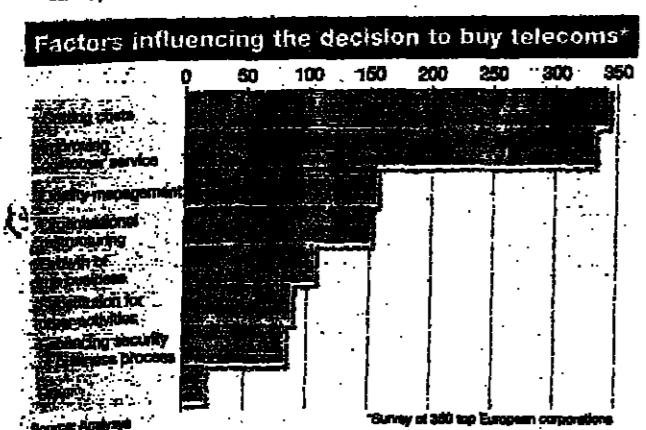
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JOEL V. LEVY

2 TELECOMMUNICATIONS IN BUSINESS Case studies

USER PROFILE

Distribution and transport

Tesco, the UK's leading supermarket chain, has equipped staff at its Southampton depot with cordless telephones to improve internal and external communications.

The 250,000 sq ft depot, which holds refrigerated goods for the local market, was opened at the end of last year.

In older depots Tesco uses the more conventional radio and public address communications systems but has found that they are inefficient. When people are called over a public system they have to find the nearest phone extension and wait for the incoming call to be diverted to it.

This takes too much time and the call can be lost before it is picked up, which in turn causes an unnecessary waste of time and the extra expense of calling back.

In 1984, Tesco tested cordless systems based on the

DECT (Digital European Cordless Telephone) standard, but delayed making a decision on implementation.

Soon after, it took its first step into cordless technology, introducing a small number of Companion handsets from the Canadian manufacturer Nortel (Northern Telecom) at its print centre near Milton Keynes. These use the CT2 standard, an alternative to DECT.

Tesco has a large investment in Nortel switching equipment and therefore preferred cordless systems linked to its Nortel private branch exchanges.

When the new Southampton depot was opened, distribution managers favoured the use of cordless systems over traditional walkie-talkie systems, arguing that this would give them much more comprehensive communications.

Further trials of

DECT-based equipment concluded that it did not work well in a refrigeration environment, according to Mr David Sheridan, Tesco's telecommunications controller.

"We were going to use a DECT system, but we found that in a large refrigeration centre the reception level was affected. It was a peculiarity of DECT that we could not easily resolve," he says. "We did not have a strong view about which standard was better, it was purely a practical matter."

Tesco then contacted British Telecommunications for advice and conducted a further test using Nortel's Companions. This test was successful and it was decided to go ahead with that system. Companions were given to 24

staff at all levels within the new depot. About a dozen base stations were needed to ensure seamless communication; these have been concealed in the roof.

"It has worked like a dream since the depot opened and the staff absolutely love it," says Mr Sheridan. "It has greatly improved the speed of communications and the productivity of the depot."

Staff can now be easily contacted anywhere within the depot by head office, local stores or business partners.

Tesco will now consider whether it should use cordless technology in all its 20 depots around the country, some of which are larger than the Southampton one, as well as in its stores. The Companion system is claimed to be able to cover up to 500,000 sq m.

The company is considering whether to carry out more trials this year. If it decides to spread the use of cordless technology, the likelihood is that Nortel's Companions will be used.

"I am after a common system for all our locations," says Mr Sheridan. "We don't want to mix suppliers."

He does not expect that cordless phones will ever completely replace desk phones, because they are more expensive to install, but a number of staff who do not have desks now have phones for the first time.

A large number of Tesco staff have mobile phones on cellular networks such as Vodafone and Cellnet, but these are used for longer-distance calls and are not suited to use in depots. Mr

Sheridan expects that they will continue to be used.

Tesco is not the only UK supermarket chain which has ventured into cordless technology, but like its competitors it believes that every little gain in productivity is worth pursuing as the battle for market share intensifies.

Ms Diane Trivet, a Dataquest analyst, said that CT2 was likely to remain as a niche technology. "There is room for both in the market," she said.

Although DECT systems have been successfully installed in many sites, there have been other reports of difficulties. DECT operates at a 1.9 gigahertz frequency; CT runs at 846-868 megahertz.

Some experts say that DECT's higher frequency may affect its performance in certain environments, such as those which feature thick

concrete and metal. Performance can sometimes be substantially improved by increasing the number of base stations, although this increases the cost.

However, there have in the past also been some reports of problems with CT2 systems.

The market contest will be resolved in the next few years, as cordless systems spread more widely.

Other types of retailer have discovered different benefits. At the Swedish furniture chain IKEA, according to Nortel's product marketing manager Mr Keith Newman, cordless technology has helped sales.

"Big orders can be lost if the warehouse manager cannot be contacted, because people ring around to find the first store which has got what they want," he said. "So contactability can have a very high value."

George Black

Tesco depot goes cordless

USER PROFILE

Pharmaceuticals

A senior executive of Eli Lilly, the US drugs company, once described his company's business as "50 per cent information technology, 50 per cent pharmaceuticals." His comment highlights the increasingly crucial role played by computer and telecommunications technologies in the fast-changing, high-pressure world of the global pharmaceutical manufacturers where a day's delay in bringing a product to market can cost \$1m in lost revenues.

Most companies in the pharmaceutical industry, like those in other sectors, have embraced the mantra of cost containment, business process re-engineering and workflow management enthusiastically as means to improve financial performance and maintain a competitive edge.

This, says Ms Grace Ashby, Mercury Communications' sector development manager for

the pharmaceutical industry, has in turn led drug companies such as Eli Lilly and SmithKline Beecham to take a closer look at their voice and data telecoms requirements and in particular, at the ways in which telecoms systems and services can help enhance business prospects.

Mercury Communications, whose clients include SmithKline Beecham, often provides a wide range of telecoms services for its pharmaceutical corporate customers. This can include virtual private networks which allow low-cost short-code dialling throughout a multinational's disparate sites, videoconferencing services, centralised billing and consolidated management reports which provide the client with a comprehensive view of their telecoms services usage.

Several companies in the sector have installed sophisticated

interactive voice response systems to deal with doctors', chemists' or patients' inquiries - some have been set up so that callers can press a number on their telephone handset and have details of possible side effects sent back to them by fax.

Other innovative uses of telecoms have included the use of free-phone numbers for customer care initiatives - SmithKline Beecham, for example, used a free-phone number to answer questions from the public when its Tagamet anti-ulcer drug was launched into the over-the-counter market.

The need to reach out and communicate with existing or potential customers has also encouraged drug companies to become early business adopt-

ers of the Internet as a marketing medium. Today, pharmaceutical companies' Web sites are among the best presented and most informative on the Internet.

"Using the Internet, companies are able to manage much higher volumes of inquiries than on the phone," says Ms Ashby.

Pharmaceutical companies are also using the Internet as a means to disseminate information about their products to doctors and others in remote geographic areas. Meanwhile, closed-user online services such as Health Online, a medical electronic service set up by Burda, the German publishing group, provide a more secure and confidential communications channel.

The Internet has also become an important source of information for those working to develop new drugs. Researchers, often using pseudonyms and perhaps even laying false trails to confuse competitors, use the Internet to search for patents, track competitors' products and pinpoint market opportunities.

Given the escalating costs and risks involved in new drugs, many pharmaceutical companies are also attempting to manage and spread the risk by forming research partnerships.

In these cases, secure telecoms links can help geographically remote teams exchange data and work more closely together. "We can provide advice of

time-to-market for new drugs, for example by speeding up the time it takes to process clinical trials.

"Some companies believe they can cut the clinical trial process by half, from 30 months to 15 months, by managing the process better," says Ms Ashby.

Traditionally, a clinical trial depended on a lengthy and largely paper-based process which began with a general practitioner filling out a piece of paper after seeing a patient, sending this report back to the company conducting the trial which then had to input the data into a computer for analysis.

"Videoconferencing has become a routine communication tool in co-ordinating international R&D activities," says Mr George Poste, the group's RD chairman. The company's expanding videoconferencing facilities include studios in its West London headquarters which are rarely empty.

Most companies are also trying to use technology to reduce

they can access the latest clinical trial information remotely.

Pharmaceutical sales representatives were also among the first users of mobile computers, data services and cellular telephony although Ms Ashby says most companies in Europe are now switching to digital telephones based on the Global System for Mobiles (GSM) standard for both voice and data.

"We are seeing people migrate from analogue phones to GSM for data," she says.

For "teleworkers" and others who work partly or entirely from home, telecoms operators can also provide free-phone numbers and pin-protected remote access services. Indeed, as computing and telecoms continue to converge, the partnership between IT service providers and pharmaceutical companies is likely to become even stronger.

Paul Taylor

USER PROFILE

Financial sector

Early, enthusiastic users

If money is the lifeblood of the financial services industry, telecoms is its circulatory system.

Financial services companies are early and enthusiastic users of information technology. They spend more on telecoms and computers - between 3 and 6 per cent of gross revenues - than companies in other industrial sectors and are fiercely unforgiving of faults and breakdowns.

"In this business, people cannot live without communications," the telecoms manager for a large stockbroker acknowledged. "We had a problem today with our dealerships - the automated systems which provide high-speed connections to customers and other brokers - and there was panic; the dealers were screaming for the fault to be rectified."

This explains to a large extent the caution and conservatism among telecoms managers. They buy the best equipment and test it thoroughly before using it in anger; pilot systems in which two or more manufacturers are pitted against each other are not uncommon.

By the same token, financial services organisations are important customers for telecoms operators seeking to encourage greater use of their telecoms infrastructures.

A recent survey sponsored by Mercury Communications covering financial institutions in Frankfurt, London, New York, Paris and Tokyo, revealed that worldwide, the chief priorities are reducing prices and improving service levels.

Customers in Paris, Frankfurt and Tokyo, where national operators still have a monopoly, were most interested in lower costs while firms in London and New York were more focused on improvements in service level.

Managers agree that competition makes a huge difference; it provides the principal impetus for cost reduction and service improvement. In the UK, for example, there is a substantial difference in costs between British

Telecommunications and other licensed operators such as Mercury, MFS and Colt.

An important trend is the outsourcing of telecoms requirements. Whereas in the past a firm might build its own network to cut costs and achieve a tailored service, it is increasingly common to find firms relying on carriers to provide a managed network.

According to the Mercury survey, 61 per cent of London-based financial organisations have already considered outsourcing while a further 11 per cent plan to do so in future. Paris is the laggard in this area with only 20 per cent of firms having actively considered outsourcing even if a further 30 per cent plan to do so in future.

Reasons for not outsourcing include a lack of perceived need and lack of trust in a third-party supplier. As firms move to more advanced forms of telecoms, however, it is likely that outsourcing will increase in attraction.

A company which built its

own private network some years ago and saved itself tens of millions of dollars in doing so would take a different approach today. "Building our own private network was a staggering good thing to do eight years ago, but we would not do it now."

Today, the choice is more likely to be a virtual private network. Based on "intelligent" switching equipment, this gives customers the equivalent of a leased line for the cost of a call over the public switched network.

The Mercury survey

analysed the use by financial institutions of four advanced telecoms services: videoconferencing, location-independent working, asynchronous transfer mode (ATM) and the Internet.

Videoconferencing has become increasingly common as the ready availability of chips capable of processing video images has brought the service to desktop personal computers at reasonable cost. More than half of the London-based companies in the survey used PC-based systems compared to only 20-30 per cent in other cities, while Tokyo-based companies tend to use traditional studio-based systems.

Location-independent working - working outside the office with telecoms links providing access to many of the services conventionally supplied to the desktop - seems to be in its infancy. The survey found that sales staff and IT management were the most enthusiastic users: "Although widespread, location-independent working

Alan Cane

is more likely to be done on an ad-hoc or needs basis rather than a company-wide decision," the survey concludes.

ATM is a new technology associated with companies' need to send or receive large amounts of data, often on a "bursty" or occasional basis which would make the permanent installation of a high capacity line uneconomic.

It is still in an experimental stage in most organisations.

The Internet proved by far the most popular of the four technologies but also the area where there was most anxiety.

The overriding concern was security,

followed by cost, the risk of infection by computer viruses, lack of privacy and - a worry not limited to the financial sector - fears that staff might be wasting time and money "surfing" in office hours.

The benefits were perceived as access to more, better and faster information, followed by advertising potential, cost cutting, the ability to use electronic mail and the ability to generate new business.

Telecoms managers still believe that their suppliers do not understand their needs clearly enough. For example, as they expand globally, the need to have similar systems operating in the same way in each location.

One manager said: "There is a lot of clever technology out there. The trick is to pitch into a new technology at just the right moment. Too often, we are offered systems just slightly ahead of what we can cope with."

Then, in the 1980s, the backbone was upgraded to a digital network - in 1983 the company was the first user in the UK of megastreams or 3-megabit "digital pipes."

The packet switching network was replaced by IBM Systems Network Architecture (SNA), a communications protocol which links the company's IBM terminals worldwide to its various mainframes.

The speech network was upgraded to a fully digital system utilising 2-megabit ISDN lines.

Towards the end of the 1980s, the company took advantage of telecoms liberalisation to use "break-out" which charges a long-distance call from inside the private network to an outside party as a local call. Indeed, Coten met many of British Steel's needs at a reasonable cost, but by 1988 it began to recognise that the era of the inter-site private network was coming to an end, says Mr Kaye.

Secondly, it should allow the company to take advantage of new technology developments much quicker, because these

could be expected to come as part of the Mercury package. Developments would include ATM (asynchronous transfer mode), the promising technology for combining voice, data and full motion video in a single transmission path; and "frame relay" for expanding and linking local area networks.

Thirdly, it should be much easier to expand the network internationally via a telecoms company such as Mercury.

This is an important consideration for British Steel as it expands overseas, and in the old network the ability to develop internationally was very constrained, says Mr Kaye.

Initially, the contract concentrates on a speech and data network for the UK, but international network development is under way and will accelerate. Frame relay has already been used for establishing a data link between the UK and British Steel's offices in Chicago and Montreal.

Finally, says Mr Kaye, there is a general outsourcing point: "It removes the need for us to have people with their heads down in technology. Instead, they can concentrate on end-user benefits."

Effectively, the deal with Mercury means that British Steel has outsourced the management and maintenance of the network, although it does not constitute full outsourcing because neither people nor

assets were involved.

Since the Mercury deal, though, there has been some full-blown outsourcing at the steel company, which earlier this year sold its Central Management Services unit to Hockyns, the UK arm of French computer services group Cap Gemini Sogeti. CMS ran part of British Steel's IT operations and as part of the deal 300 employees switched to Hockyns.

Meanwhile, Mercury has set up a dedicated "front office" at Wythenshawe, Manchester, to handle service calls from users of the British Steel network and look after their future requirements.

Essentially, the steel company is future-proofing itself by ensuring it will have a telecoms network suitable for the next millennium, which will enable it to take advantage of the many facets of the information superhighway.

The use of multimedia, for example, will require increasing bandwidth to be available. "As we need it, we should be able to get it quite easily from the virtual private network," says Mr Kaye. Also, while audio-conferencing has been used for years at British Steel, videoconferencing as a substitute for meetings is a newer idea, and would be facilitated by the Mercury network.

Andrew Baxter



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■ Asynchronous Transfer Mode (ATM) and Frame Relay: by Tom Foremski

Too fast for many users

ATM will be an increasingly important technology for communications

When it comes to fast communications technology that can transport a wide variety of different data types, the future belongs to Asynchronous Transfer Mode (ATM)-based communications networks. The only problem is that it is too fast for many current users.

But as the demand for sending and receiving large graphics files, video, voice and other

multimedia data services increases, ATM will be an increasingly important technology for communications. And ATM will also make its way into the office in the form of ATM-based local area networks (Lans) and possibly even into the internal communications buses of PCs.

The versatility of ATM is due to its design. It cuts up all data traffic into 53 byte packets which makes it easier to build high-speed switches since the size of each packet is always the same. With speeds of 155 mega bits per second (Mbps) and 622 Mbps possible, voice, video and graphics data packets can be mixed together

while still retaining a real-time transmission.

Customers can also be charged for the amount of data they send instead of being forced to pay for a digital line of a certain capacity, such as a T1 line, even if they do not use the whole bandwidth.

"That has changed," says Mr Waddell. "We can now offer customers services from 2 to 4, 6, 8, 10 and 12 megabits with ATM, without having to hop up to 34 megabits. And much of the market is in that lower band right now."

The Mirror Group, publisher of the Daily and Sunday Mirror newspaper, will use the Energis ATM network to transmit editorial copy and pages directly to printing plants, enabling it to publish late-breaking news in its newspapers.

ATM's speed is also much in demand for carrying Internet traffic and it is an essential technology in helping to increase the data-carrying capacity of the global Internet.

Energis boasts the largest ATM network in the UK, using fibre optic links strung along the earth wires of electrical power pylons. The trouble, however, is that there are no customers that need data delivered at such high speeds.

For most companies, a T1 line that handles data at about 1.5 Mbps, is plenty, and frame relay switching offers good and reasonably-priced performance for data traffic up to about 3

Mbps. A key problem with ATM is that it was difficult to offer customers a way to move from steadily increasing data communications needs without forcing them to jump to very high speed bandwidths.

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Torch Telecom transmits live video and audio of surgery from operating theatres at St James' Hospital in Leeds across the city to a new laparoscopic surgery training suite (above). Transmission is via a 622 megabit dedicated link using ATM capability at both ends, for high resolution picture quality

Mbps compared with typical NAPs that handle data at 45 Mbps. Pacific Bell says that its network already handles almost a third of all US Internet traffic and that the new NAP will help avoid Internet log-jams. The company also has plans for an ATM platform handling as much as 20 gigabits of data per second.

Although ATM is still too fast for the needs of the vast majority of companies, Walt Disney Animation Studios in California requires high-speed data communications to send and receive high-resolution images. The company has installed a 155 Mbps ATM network linking 11 buildings to transmit large image files used to create its animated films.

Its forthcoming *Hunchback of Notre Dame* animated feature is being produced by 250 artists connected to its ATM network. This kind of high-speed network gives Walt Disney artists almost instant access to a database of more than 3m high resolution images.

ATM is perfectly suited for Disney's requirements and as other companies increase their

single topology that handles both local and wide area networks, transport needs make ATM technology particularly appealing to corporate network managers.

"Many of the companies CII surveyed have already budgeted funds to begin converting their network infrastructures to ATM."

CII says that manufacturing companies with Cad-Cam applications are the leading candidates for ATM adoption, followed by government, services, education and medical.

While there is no denying ATM's speed and future promise for many users, it may be several years before ATM makes a widespread impact.

"ATM is not going to take over the world any time soon," says Mr Mike Pilbeam, research director at Cray Communications in the UK. "That's because there is a tremendous amount of basic telephony services already in place that do a good job and will satisfy many users' requirements for many years into the future."

Mr Pilbeam points out that carrying voice over ATM networks can result in a loss of quality which users do not like. And ATM's move into LANs, where Ethernet technology dominates, also will not happen in a hurry. This is because Ethernet technology is being upgraded to 100 Mbps and even 1,000 Mbps speeds and can take advantage of Ethernet systems already in place within company networks.

■ SDH: by Tom Foremski

Data highways workhorse

The great cost of SDH software development has resulted in joint ventures between companies to help share expenses

When it comes to providing businesses with a wide range of data services, Synchronous Digital Hierarchy (SDH), or Sonet as it is known in the US, has emerged as the workhorse on which telecoms carriers around the world are building future super data highways that can move voice, video, graphics and other data at very high speeds.

SDH is rapidly replacing an older digital technology called Plesiochronous Digital Hierarchy (PDH), which does not provide the same management facilities. With SDH, network operators can create an intelligent transmission channel that offers better reliability and recovery in the event of a failure in a part of the network - and also allows all current and planned data and voice services to use a common infrastructure.

If Germany's Deutsche Telekom is considered the most aggressive in its SDH investments. According to market research firm Yankee Group, it is spending more than \$500m a year on installing SDH equipment.

In the UK, British Telecom is also making substantial investments in a nationwide SDH network along with other companies. For example, Energis Communications boasts it has the largest operational 100 per cent SDH network in the world, carried on a nationwide network of fibre optic cables strung along the earth wire of the national power grid.

"Other telecommunications companies in the UK offer SDH but they also have a substantial amount of PDH systems in place which coexist with SDH but can slow down overall performance. We have a 100 per cent SDH network," says Mr Alastair Henderson, manager of network strategy at Energis.

Mr Henderson points out that unlike older PDH systems, SDH-Sonet equipment can be used virtually anywhere in the world because of its success in becoming a global telecoms standard. This ability to create universal SDH equipment helps keep down the costs of installing SDH networks.

Energis, like other newly-formed operators, started off with an advantage in that it did not have an existing infrastructure of PDH equipment to protect and to amortize. It could jump into the market with the best telecoms technology it could find.

SDH offers data speeds ranging from 155 megabits per second to as much as 10 gigabits per second. And it can carry Asynchronous Transfer Mode, frame relay, TCP-IP and other data, making it perfect for a wide range of voice and multimedia data services.

"For example, the BBC uses our SDH network to carry television and radio programmes between its various studios and its broadcasting facilities," says Mr Henderson. Energis won the multi-year £100m deal because of its SDH network and the improved management and reliability SDH offers.

But SDH's performance comes at a price. It is a very software-intensive technology resulting in huge development costs for the leading telecoms equipment companies. The great expense of SDH software development has resulted in joint ventures between companies to help share costs.

For example, UK-based GPT is allied with Siemens and has emerged over the past few years as the leading supplier of SDH equipment with about a 30 per cent worldwide market share.

"SDH is providing the data

communication backbone on top of which all kinds of data services are being offered," says Mr Bernie Jarvis, director of strategy for GPT Public Networks Group. "Corporations are increasingly aware of the benefits of SDH and are asking for it by name. They realize that their communications networks are vital to their operations and they want SDH."

And while SDH is a robust technology, there are some problems in using SDH equipment from different vendors. These compatibility problems are related to the different high-level functions offered by different SDH network operators and Mr Jarvis says that these incompatibilities often mean that telecoms companies have to separate different parts of their network and just use equipment from one vendor on that part of the network to ensure compatibility.

Efforts are under way to overcome the compatibility problem by developing international standards. "Progress is being made on the standards issue but it's a race to keep up with the higher functions that some SDH operators are providing. SDH networks can be made compatible but they would offer a lower level of functionality," says Mr Jarvis.

He explains that many large organisations are leasing SDH lines to act as the links between their internal corporate networks. The high data-carrying capacity of SDH makes it possible to implement applications such as videoconferencing, voice, text and Internet-related data transmission.

Many customers of SDH services are also demanding that fibre optic links be established to improve the reliability of their telecoms networks.

The growth of cable TV operators is also creating demand for SDH to provide cable TV customers with telephone services. And SDH networks are used to distribute TV programming to local points before being distributed over the cable TV company's coaxial cable networks to homes.

While SDH offers a large data-carrying capacity, with the exploding growth in data services such as Internet access, interactive video and other high-bandwidth services, there will be a need for even greater data-carrying capacity by the turn of the century.

"While it's possible to achieve about 10 gigabits per second with SDH, it is pushing the current technology to its limits," points out Mr Henderson at Energis. "The next major advance will occur when it becomes possible to operate in a pure optical mode."

Currently, fibre optic networks carry data optically on a single wavelength. Communications networks have to translate that data to electrical signals for switching and amplification. This slows down the network and increases costs. Ideally, it would be best to do all the switching and amplification optically.

Several high technology start-up companies are beginning to offer optical equipment called wave division multiplex, capable of offering up to 16 or more separate wavelengths on a single fibre.

Each of the 16 wavelengths can carry a high-speed SDH traffic path effectively multiplying capacity by 16. In addition, optical amplifiers are being used to increase the distances between equipment sites from about 50km to several hundred kilometres. This technology has been used successfully in international submarine cable links, and will also be used in national networks.

In the meantime, current SDH networks are predicted to be able to supply corporations with plenty of capacity for their data services for many years to come.

It's not fair. After all, this is the first time you've heard of Energis. Isn't it? There is, says the smart Alec at the business meeting/convention/dinner party/pub, only one way to run

your communications these days. Perhaps you haven't met him yet, but you will. (The number of these people are as yet mercifully limited, at present only 40 of The Times Top

1000 companies work with Energis.) However, it is as well to be prepared. When one of these know-it-alls presumes to tell you: "Of course Energis is the most advanced

communications company in the world." Simply say "I know." When they say "It already has a national network." Say "I know" and when they say "It will invariably save your

company money." Say "I know". You could, if feeling particularly bullish, put the lid on it by saying you already have it under control. Couldn't you? 0800 316 2162.

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4 TELECOMMUNICATIONS IN BUSINESS New services and technologies

■ Computer Telephony Integration (CTI): by Tom Foremski

Potential market is huge

Tens of millions of businesses around the world rely on their relatively simple telephone systems. CTI offers a more productive way to manage this resource

Imagine phoning home from the office and your PC tells you there is an important call on the other line from a key client and it automatically brings up the client's order information and the notes of your last conversation. Or you might choose to ignore a call, sending it to your voice mail box because your PC tells you the caller is a telesales operator.

These are the kinds of functions possible through the use of Computer Telephony Integration (CTI), a technology that brings the power of the PC to what is essentially a simple telephone. For many businesses, the efficiencies that CTI could provide are becoming very attractive.

But it has also been an area where potential customers have been concerned about industry standards and reliability. There are a number of proprietary CTI systems but the main action is in setting the industry standards that will allow software and hardware vendors to mix and match CTI systems depending on customer needs. This will also help to drive down the price of CTI and expand the market opportunities.

The potential market is huge. Tens of millions of businesses around the world rely on their relatively simple telephone systems. CTI offers a more efficient and potentially a more productive way to manage this resource.

Currently, there are two main CTI standards being pushed. One is from Microsoft and Intel with their Telephone Application Programming Interface (TAPI) technology, and the other is the Telephone Services Application Program-

ming Interface (TSAPI) being promoted by Novell and AT&T.

The main difference between the two is that TAPI is being used to allow PC-based CTI applications to take on many of the functions of a PBX (Private Branch Exchange), while TSAPI is more focused on the back-end, linking the PBX with network servers. This distinction is not quite as clear-cut as it seems, because Microsoft is also promoting TAPI for network servers connected to PBXes through Windows NT-based servers, and TSAPI is also being promoted to PC software developers.

This means that the current standards battle is between these two camps and their supporters - which does not help

Colonial Direct has set up a telephone-based personal finance planning division based on call centre technology from Co-Cam, specialists in call centres, marketing and contact management applications

customers who want standard solutions that can be configured for many different applications without possible incompatibility problems.

Microsoft is making a concerted effort to win the standards battle by including TAPI support within its operating systems, which are virtually ubiquitous in the PC world. This is very enticing to software and hardware developers because it means there are already tens of millions of PCs with the ability to support CTI applications - and tens of millions of potential customers.

But despite the availability of standards, there is no guarantee that the various companies supporting those stan-

dards will implement them in ways that will always prevent compatibility problems. This makes setting up CTI systems a more complex process which still requires considerable planning and testing.

Despite the potential pitfalls, many companies are installing CTI systems. One bank, for example, is using CTI to prompt sales staff to call specific clients if there is any change in stock prices that might affect those customers.

According to Mr Jason Peacock, systems engineering manager for Voice in British Telecom's Global Finance Sector: "CTI has a lot to offer retail banking. On the wholesale banking side, there are also now plenty of bespoke

and "third-party call control" which allows someone not participating in a call to set up conference calls and other functions.

Third-party call control is considered more expensive but more desirable because it allows companies to have a more flexible CTI system. However, Mr David Parcell, managing director of UK CTI vendor Co-Cam, is trying to make third-party CTI systems more affordable and easier to install.

"Companies face a barrage of conflicting definitions, promises of unsubstantiated benefits and a whole host of horror stories of complexity. The net result is that third-party CTI is viewed as a high-tech luxury confined to large call centres with big spending power," said Mr Parcell.

Co-Cam is one of many companies attempting to bring down the cost of higher function CTI systems. Co-Cam is offering an off-the-shelf third-party CTI system which can be scaled from small call centres, with as few as five agents, to much larger call centres.

The Internet is also making an impact on CTI. At the recent Computer Telephony Integration Expo, in the US, several companies showed CTI-Internet products. US-based SpanLink introduced its WebCall software that allows Internet users to click on a "call agent" button while browsing a web site and receive a call from a company representative.

There were also products that use the Internet to make phone calls such as the @Once telephone gateway server from Dialogic and VocalTec that connects an Internet-connected PC to any telephone. Lucent Technologies and Siemens-Rolm demonstrated products that provide Internet-based telephony access into call centres.

CTI certainly promises businesses a wide variety of powerful applications and while the standards issues have yet to be settled, there are already enough CTI applications available that should help to improve the efficiency of virtually any size of business.

It is quite simple to use. You pick up the phone, dial an access code followed by a personal PIN number and the number you want to reach. The call is billed either to your own telephone number or to a separate account. You can use any telephone and talk for as long as you like. And if you're abroad you don't need to read foreign language instructions or go through a foreign operator.

The separate billing feature, says Mr Elliott, is especially useful for business users:

"For business people doing a lot of travelling, the charge cards give you itemised billing and the equivalent of a receipt

■ Calling cards: by Philip Manchester

Solving travellers' problems

One important use of the cards is for frequent travellers who must use hotel telephone systems

You need to telephone home urgently. But if you're in a foreign country, you don't speak the language and you don't have enough change to make the call.

Anyone who travels regularly has faced this problem and it can cause deep anxiety and frustration. The answer to all of these problems - as revealed in a current TV advertising campaign by British Telecommunications - is a telephone charge card or calling card.

BT and most of its rivals offer the cards free of charge as an incentive to their en-

ters:

"We see it as a way to keep in touch with our customers when they are travelling abroad. The card keeps our name in mind and helps us to hold on to our market," explains Mr Chris Elliott, UK marketing manager for BT Card Services.

BT charge cards operate anywhere in the UK and in 120 countries around the world. Mr Elliott says that despite its apparently low profile, BT has operated a charge card service since the early 1960s and there are as many as 75 million users of the service.

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"For business people doing a lot of travelling, the charge cards give you itemised billing and the equivalent of a receipt

for expense claims," he says.

Other telecoms suppliers have followed BT's lead with charge cards - offering similar services:

"We launched the Mercury Calling Card at the end of 1993. It lets you make a call from most telephones in the UK and covers about 60 countries internationally," says Mr William Hoyle, card services product manager at Mercury.

Mercury users like the BT card users, must also enter an access code and a PIN number before placing their call. And Mercury offers similar billing arrangements. Mr Hoyle says that Mercury emphasises the business value of its charge cards:

"From the business perspective it does give you an element of control you don't have with cash calls. Take the haulage industry, for example. Tra-

ditionally, haulage companies

will give their international drivers wads of notes to make calls when they are on the road. They had no control over what happened to it. With the card, they get a summary statement with all of the calls

and the equivalent of a receipt

for expense claims," he says.

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Mercury operates a similar scheme under its 3 Call ser-

vice:

"You can set this up to limit calls to up to three designated numbers. When a call is placed from one of these cards, it is checked against an online computer database to ensure it is authorised. Some of our customers with children away at college tell me it is the best way to make sure they phone home," says Mr Hoyle.

Call charge cards certainly seem to solve many of the problems faced by travellers - and they can also expect to save significant sums on charges. Mercury reckons the charges in the UK come out at about the same rate as those made from a standard payphone. BT says that callers can save between 3 per cent and 10 per cent on UK calls.

"We see no reason why everyone shouldn't have a charge card. They cost the user nothing and are very convenient, especially when trav-

elling," says Mr Elliott.

"A lot of business users want to be able to go to their

hotel room and plug their laptop into the telephone system and, perhaps, spend a half an hour exchanging data with their head office. This could be very expensive if you are billed at the hotel rate," he says.

Mr Elliott from BT says that some hotels charge a small connection fee - but that the trend is towards free access, especially in the US.

"Big companies have put pressure on the hotel chains to allow free use of charge cards and this is the way it is going internationally with the big chains."

It is not only business users and frequent travellers who can benefit from charge cards, however. BT and Mercury are both keen to spread usage to domestic phone users and have schemes in place to promote this:

"We offer two kinds of card

- a standard one for unrestricted use and what we call a Phone Home card which can only access a designated number. Parents can give these to their children or elderly relatives to make it easier for them to phone them," says Mr Elliott.

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6 TELECOMMUNICATIONS IN BUSINESS The Internet

A recent survey of corporate communications executives by global consulting firm Manning Selvage & Lee indicated that the rush by companies onto the Internet has been driven primarily by what the organisations regard as the potential public relations benefits.

Of the 512 business executives who responded to the Cyber-Blast survey, more than a third said their company had a Web site in operation, while 38 per cent said one was under construction or planned.

While these kinds of figures might call to mind some less-than-serious predictions - that by the end of the century 94 per cent of US businesses

would be on the Internet, but only 12 per cent would know why - it would be wrong to assume that the companies who are there already are not highly sophisticated.

According to Serafina Espie, European marketing director of M/NET, the interactive marketing arm of Manning Selvage & Lee: "Corporate communicators are relying heavily on interactive technology - and they expect this to grow spectacularly, by as much as 400 or 500 per cent in the next five years."

The marketing potential of the new medium is already immense. US investment broker Fidelity, for example, claims that one in 20 of its new

clients comes to the firm through the Internet.

'Direct Age' is dawning

The marketing potential is enormous. US investment broker Fidelity claims that already one in 20 of its new clients comes to the firm through the Internet

Overview by Stephen McGookin

by Stephen McGookin

on an existing PC. These 'beginner sites', however, are quickly becoming obsolete, giving way to more sophisticated and complex projects.

"The hardware and software costs of more advanced sites could easily total £60,000

£70,000. But even this outlay will be far outstripped by the personnel costs involved in establishing and maintaining an effective Internet presence; these could run into hundreds of thousands of pounds a year."

While electronic mail remains by far the leading use of the Internet among businesses, the huge potential for wide-reaching commercial activity is tempered only by

the concerns of users about security when considering the Net as a vehicle for commercial transactions.

In the current interim period while appropriate standards are developed - allowing companies to "close the marketing loop" from customer contact to actual sale online - managers are warned that it might be conventional business shortcomings, such as poor service quality, which

challenge more direct and unmediated access to the customer. Many managers interpret this as a threat, which can translate into an over-defensive attitude towards security issues.

He concludes that: "Customer demands for quality of presentation, service, delivery and support are increasing."

"These rising expectations will affect attitudes to all companies, not only those in the electronic marketplace. An excessive concern for security should not be allowed to prevent businesses from tackling the more critical matter of devising an effective business strategy incorporating the Internet."

■ Internet telephony: by Louise Kehoe

Tricky, cheaper way to chat

PC users are increasingly talking on the Internet instead of the telephone

Slogans such as "Talk to anyone in the world over the Internet. Free!" have drawn an estimated 500,000 people to try out software that enables Internet users to speak to one another via the global computer network over the past year.

With Netscape Communications set to add a telephone program called "Cool Talk" to the next version of its widely used Navigator Web browser, use of the Internet to place telephone calls is expected to expand rapidly.

Talking over the Internet is not as simple as picking up a telephone. The sound quality is often poor and establishing a connection can be tricky. Yet for PC users who are motivated by a slim budget, or a desire to try out the latest technology, Internet telephony is compelling.

For the cost of an Internet access account, computer users can talk to one another at no additional charge, whether they are calling half way around the world or across town. There are, however, some significant limitations to Internet telephony. The biggest is that both parties must be "logged on" to the Internet to connect the call. For most users this means that calls can only be placed at pre-arranged times.

Another problem is that there are few standards in this emerging field. Different programs - and there are about a

dozen in widespread use - incorporate various signal compression schemes and differing connection protocols. Thus, in order to communicate, both parties to a call must be using the same software, or programs that employ the same compression and connection methods.

Finding the Internet address of the person you want to talk to can also be problematic. To link two computers via the Internet it is essential to know the address of each computer. Unlike an e-mail address, which identifies a user, the address of a computer on the Internet - known as an IP address - is not necessarily always the same. In particular, many dial-up Internet services assign new IP addresses to users each time they log on.

Most Internet phone calls are therefore connected via a third computer, or server, that acts like a telephone exchange. The server matches the names, rather than the computer addresses, of registered users.

The sound quality of Internet phone calls is also unpredictable. Voice signals sent via the Internet are converted into packets of digital data. In the original, digitised sound should exceed the fidelity of analogue sound signals. However, to match the sound quality of a standard phone call, about 50kbytes of data must be transmitted per second. Yet most PCs are equipped with modems that transmit and receive data at much slower speeds. In practice, a 28.8k modem is needed to achieve reasonable sound quality. Signal delays that insert awkward pauses into a conversation are also inevitable in Internet telephony. This is because the signal passes

through dozens of other computers before it reaches its destination.

There are more than a dozen Internet telephone software programs available and many can be used on a trial basis without charge. Cool Talk, for example, is currently available in the beta trial version of Netscape Navigator 3.0 and can be downloaded from Netscape's home page on the Web.

ACTA argues that Internet telephone software companies are competing unfairly in the long-distance telephone service market because they are not subject to the same FCC regulations that govern traditional long distance carriers.

The largest US telephone companies including AT&T, MCI and Sprint have, however, distanced themselves from the group and see the development of Internet telephony as a potential new business opportunity.

Moreover, software developers and their customers are vehemently opposed to any kind of regulation of voice messaging on the Internet.

ACTA is, in effect, attempting to eliminate outside competition by banning emerging technologies," says Mr Jeff Pulver, chairman of "Voice on the Net", a coalition of software developers opposed to regulation.

Given the trend toward deregulation of the US telephone industry and the recent passage of new legislation that encourages open competition, it is unlikely that the FCC will rule in favour of the telephone companies, analysts predict.

However, the Commission has accepted ACTA's petition for consideration and is expected to rule on it later this year.

C u-SeeMe, a program developed at Cornell University adds another dimension to Internet telephony with audio and video conferencing over the Internet. In use by more than 500,000 Internet users, the program has a strong following.

An enhanced version of Cu-SeeMe was recently launched as a commercial product by White Pine Software of Nashua, New Hampshire. (<http://www.cu-see-me.com>)

Real time video and audio conferencing can be achieved with a 28.8k modem, while audio conferencing is available on a 14.4k modem.

Despite its limitations, the growth of Internet telephony is prompting concerns among

Part of the problem lies in the tendency for technology suppliers to oversell new ideas before they are ready.

"Expectations in the area of videoconferencing are being downgraded and there is a general reassessment of multimedia telecommunications going on at the moment," says Mr Ian Holt, a managing consultant specialising in telecoms at UK company Logica.

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"It is still early days to fully understand what multimedia

is and what it is capable of doing.

It will develop into a year ago when telecoms suppliers were looking at video-on-demand, home shopping and video phones. But the trials have taken a long time and do not seem to have come up to expectations," says Mr Holt.

Mr Tom Cooper, marketing vice-president of the US networking technology company ATML, says that too much emphasis has been put on the technology - and not enough on how it can be used:

"Clearly, new kinds of services based on multimedia technology are beginning to emerge.

In the US, for example, Nynex is looking to provide more than just voice on its network. We see a hierarchy of services evolving to solve different problems. At the top end you have high-quality services which some companies will be happy to pay for and, further down, less expensive, lower quality services for the mass market."

The beginnings of lower-quality, mass market multimedia services are already in existence - with the Internet acting as an important stimulus to innovation

and as an important stimulus to innovation.

Although the bandwidth - the capacity a network has to carry information - is still insufficient, the Internet is a pointer to the type of multimedia service which might emerge.

"I think one of the interesting applications of multimedia is the use of audio and video on the Internet," observes Mr Ernie Radowick, director of the entertainment group at US software giant EDS. "Although there are certainly limitations on quality because of the low bandwidth, it is beginning to happen. As the bandwidth increases we will see videoconferencing over the Internet coming into its own."

"Videoconferencing has been around a long time, of course. But it takes a lot of effort to set

it up and it is expensive. With the Internet you will be able to log on from the desktop and do it," he adds.

Mr Radowick also sees significant scope for multimedia in distance learning applications.

He says EDS has already made some progress in using the technology to educate its own staff: "Much of our internal training is now carried over the network and uses full multimedia.

But they are beginning to see it is not as easy as they thought."

Mr Holt points to the alliances that telecoms companies are forging with innovators in the services market as one indicator of a change of attitude: "The successful telecoms companies will be those which can adapt and you can already see some of the big names like BT looking for ways to expand their services."

"If you look at what is happening with Internet service providers, for example, telecoms companies are signing deals with the new players. We have several projects on the go with telecoms companies to help them change and see how they can meet the new market."

Mr Cooper of ATML sees a similar pattern in the US: "Multimedia is leading telecoms suppliers into new businesses so you see AT&T, for example, spinning off services and content providers because it is more profitable to do this. NCR and Lucent are two examples."

While the real benefits of multimedia telecoms are still in the imagination of marketing vice-presidents, the possibilities are beginning to become apparent. With improvements in bandwidth and lower telecoms costs in sight, a real communications revolution looks quite feasible by the end of the century.

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■ Multimedia systems: by Philip Manchester

A revolution seems feasible

The beginnings of lower-quality, mass market multimedia services are already in existence - with the Internet acting as an important stimulus to innovation

The transformation of telecommunications networks into channels for multimedia has reached a critical stage. Traditional telecoms suppliers - who are part of the way through a massive re-engineering of their networks - are having to adapt to new market conditions. And they face competition from cable and satellite suppliers and a plethora of new "service" operators.

At the same time, raw telecommunications is fast becoming a commodity with a decreasing profit margin. In the future, revenues are expected to come from added-value services.

Multimedia applications are the catalyst for much of this activity - but multimedia faces a crisis of credibility in the business market. Early enthusiasm for what appeared to be a revolution in communications has faltered and businesses are looking for viable applications.

Part of the problem lies in the tendency for technology suppliers to oversell new ideas before they are ready.

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They are virtually impossible to counterfeit.

In the UK, trials are already

in progress using an electronic wallet called "Monex" for conventional shopping. It is too

early to say whether Monex or cards like it will replace notes, cheques and bank cards.

But it may be the answer to cash transactions in cyberspace.

"Investor's Guide to the Internet", Paul B. Farrell, John Wiley & Sons, £18.99.

"Digital Money", Daniel Lynch and Leslie Lundquist, John Wiley & Sons, £17.99.

popular encryption technology is provided by RSA Data Security. It is an example of "public key" cryptography which depends on two encrypting devices, one freely available, the other known only to the recipient.

TELECOMMUNICATIONS IN BUSINESS

Tough decisions for telecoms managers

Radically new products and services are on the way which promise better ways of doing business. Selection will become even more difficult for telecoms executives. Alan Cane reports

The telecommunications business provides incontrovertible proof of the effectiveness of competition in forcing down prices and broadening options for customers.

Telecoms managers working in countries where telecoms markets are open are spoilt for choice compared with their counterparts in more restrictive regions. In the past 12 months, a number of events have conspired to widen that choice still further, while making choice and selection even more complicated for telecoms executives.

First, a global pact on telecoms liberalisation could be in place by the beginning of 1990 after the 83 nations involved in World Trade Organisation talks decided to postpone the deadline for agreement until February next year. According to the US-based Institute for International Economics, an accord could save telecoms customers in developed and developing countries more than \$1,000bn over the next 12 years in lower charges, better service and more advanced technology.

January 1, 1990, is also the date when telecoms services and infrastructure across the European Union should be opened to full competition, with the prospect of lower prices for all European customers. At present, a national long-distance call in Germany, where Deutsche Telekom retains its monopoly, costs 78p for three minutes, while in the fully liberalised US and UK the same call costs 37p and 19p respectively.

Second, President Bill Clinton opened the floodgates for change in the US when he signed the 1986 Telecommunications Act, a document which tore down the competition barriers between local, long-distance and cable television operators. Every residential and business user of communications will be affected by the legislation which essentially allows more companies to compete in more US telecoms markets.

Immediate responses to the threat of increased competition have been seen in the mergers of SBC Communications and Pacific Telesis and Bell Atlantic and Nynex, all "Baby Bell" regional operating companies.

MPS, a US-based business telecoms operator, says: "The challenge for users will be to decide which services and features are most important to them and then to identify the provider that can best serve their needs. Providers will differentiate themselves by emphasising the strengths they can offer such as the benefits of diversity among suppliers, back-up protection through redundancy or simplicity through streamlined and consolidated service offering."

National Utility Services, an international cost control service, noted that competition drove international call prices down 33.7 per cent last year in the US but that customers were not necessarily experienced enough to take full advantage of the decline.

"As competition continues to force prices down, both consumers and suppliers are looking for simpler charging formulas, such as pegging costs to a flat rate rather than varying charges based on the time of day."

"There was a strong push towards individually negotiated contracts. Although in the past this was only open to large users, smaller business users who may only have a \$3,000 spend are now able to capitalise on these arrangements," says the cost control service.

It warns: "The bottom line is that while most end-users are able to negotiate their contracts, few fully understand the ground rules or how to negotiate the most successful contract terms and conditions."

Third, in a sharp change of

strategy, some of the world's largest telecoms operators, among them AT&T of the US and British Telecommunications of the UK, are offering low-cost access to the Internet, the global network of computer networks.

Most telecoms operators offer business Internet access already; the significance of the new move lies in the implication that the operators are taking seriously the threat of Internet telephony - voice communication across the Internet - which could seriously damage their long-distance and international revenues.

In the longer term, multi-billion-dollar satellite projects are in progress which by 2000 could see business people able to keep in touch at reasonable cost using a mobile phone from virtually any point on the Earth's surface. One of the consortia planning such a system, the London-based ICO Communications, expects initial handset prices of about \$1,000 with calls charged at \$1 or \$2 a minute.

In addition to developments designed to cut the costs of telecoms, radically new products and services are available or in the pipeline which promise new and better ways of doing business. Telecoms operators, faced with declining growth in revenues from traditional services, are anxious to promote these new products and persuade their customers that price alone is not the best criteria for choosing a supplier.

The products include videoconferencing - which has now fallen dramatically in cost, with the availability of powerful semiconductor chips and computer integrated telephony - computer databases linked to telephone systems - which has found its most immediate use in call centres.

These complex applications require transmission systems capable of delivering substantial quantities of data which explains the current interest in integrated services data network (ISDN) lines and frame relay technology.

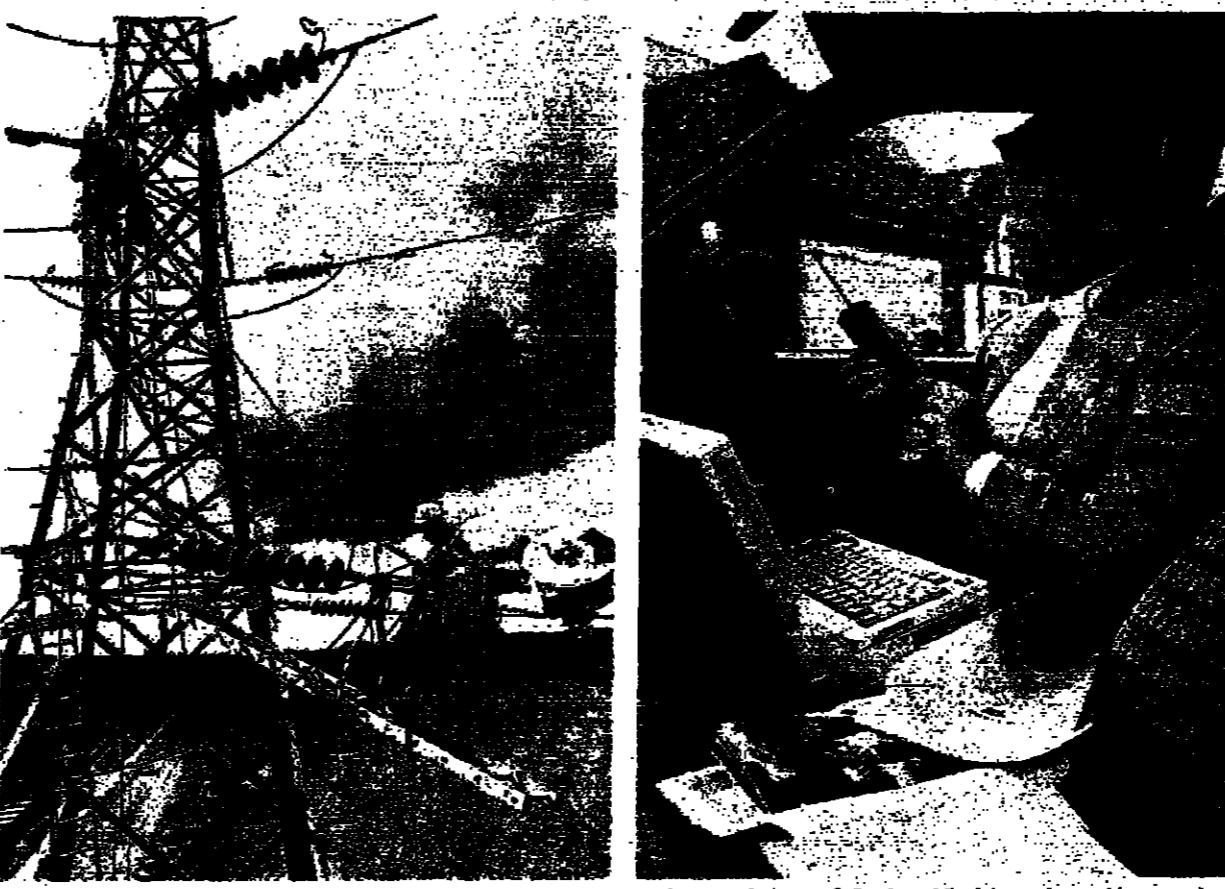
Most businesses, however, are at an early stage in evaluating these possibilities. According to a study in the UK by the management consultancy Newburn Consulting, telecoms is seen as integral to business development by most companies but remains a cost to be controlled and reduced wherever possible. Newburn found that six out of 10 companies believed their telecoms strategy was designed to "improve customer service", while four out of 10 believed their role was to "create cost efficiency improvements".

It identified four kinds of telecoms users:

- First: telecoms-propelled organisations which place a high value on telecoms and IT and spend commensurately;
- Second: frustrated visionaries with fine strategies but no funds to back their ideas;
- Third: reluctant investors who place little value on telecoms and IT but are still prepared to make big investments when necessary; and
- Fourth: the unconverted who neither believe in, nor invest in, telecoms.

Newburn's analysis of telecoms strategy in the companies it examined is particularly interesting. It suggests that companies are facing the same kind of dilemmas over strategic investment in telecoms that they faced in computers and information technology in the 1980s: "On the evidence of this survey of leading users of telecoms and information technology, less than half have strategy and investment plans and budgets aligned in pursuit of consistent business goals."

Newburn says that what a company declares to be important in terms of its telecoms strategy and how it spends its telecoms dollars do not always match.



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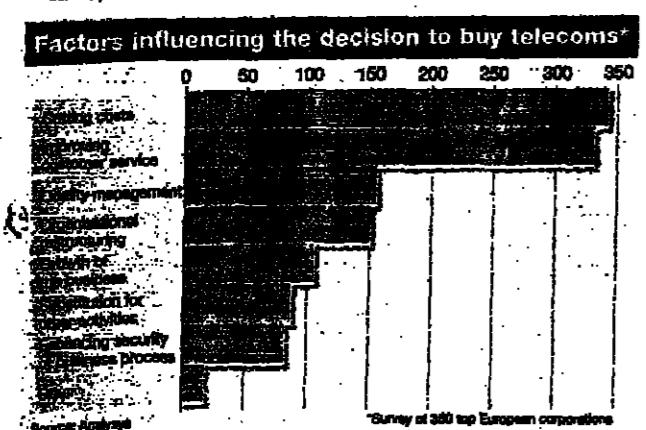
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JOEL V. LEVY

2 INTERNATIONAL CAPITAL MARKETS

■ International equities: by Antonia Sharpe

Market's future seems rosy

A variety of offerings can now be tapped by investors from all over the world

These are golden times for the international primary equity market which, thanks to the global mergers and acquisitions mania of the past year, finally boasts the variety of offerings which its name suggests. "The market has never been more busy," says Mr Ian Haumann, a director of Robert Fleming, the UK investment bank.

Only a few years ago, the market catered almost exclusively for the UK government's privatisation programme but it has now developed into a global market which can be tapped by a

broad range of equity issuers, from governments in Europe, Asia and Latin America to companies in eastern Europe.

This evolution, from a narrow market which often fell victim to the whims of international investors or the unrealistic pricing by governments selling off state assets, is due to several factors.

Probably the most important is that activity in the primary equity market has been fuelled by the strength of secondary markets around the world.

In the US, there have been instances recently of as many as 10 initial public offerings (Ipos) being launched in one day. New issuance in Europe has not reached such hectic levels but, nevertheless, the calendar for the first half of the year has been very crowded as issuers race to market before the autumn,

when Germany's privatisation of Deutsche Telekom is set to dominate investors' attention.

For some institutional investors, such as Mr Ronald Arnst, director of Lombard Odier International Portfolio Management, the levels of activity in the primary market are "a good barometer for the state of the stock markets in general".

"I don't believe that the markets are getting frothy because the excesses in the financial arena are not there - wage demands are realistic and inflation is low," says Mr Arnst.

In addition, the low-growth, low-inflation environment, coupled with stable interest rates, have boosted the levels of cash which fund managers have to invest in equities.

With secondary markets looking expensive, fund managers

are turning to the primary market in the hope that the IPO they decide to invest in will outperform existing stocks, thus improving their overall performance.

Over the past year, there have been several offerings which have done just that, from Gucci, the fashion house, to Adidas, the German sports shoe and equipment company.

Even recent privatisation issues from France and Italy, once seen as poor performers, have produced such results, notably the sale of shares in Pechiney, the French aluminium and packaging group, and Eni, the Italian oil gas and chemicals company.

Since privatisations make up such a large part of primary equity issuance in Europe, a series of recent successes - mainly due to realistic pricing and extensive marketing of

the company to investors - has made international investors far more willing to take part in future offerings.

But the high liquidity has also been a source of frustration for investors because the supply of new issues has not been enough to soak it all up. This supply-demand imbalance has resulted in many issues being oversubscribed and fund managers receiving less stock than they had applied for. In the recent privatisation of the UK's Railtrack, institutional investors were allocated just 15 per cent of their order.

Levels of liquidity in the market have also been boosted by the internationalisation of fund managers' portfolios, a trend which has become irreversible, says Mr Charles Kirwan-Taylor, managing director and head of equity capital markets at BTZ. "International investors are diversified in a way they weren't five years ago," he says.

The diversification of portfolios by US institutions has been particularly important

for the development of the international primary equity market and virtually all vendors of equity now include the US in their roadshows.

The growing participation in European offerings by US

holders and dismissive of their demands to enhance shareholder value, many European companies have now embraced such Anglo-Saxon concepts.

"The biggest positive for the European equity market is the release of shareholder value," says Mr Arnst, pointing in particular to Germany where companies are now issuing share options to senior management as performance incentives and are contemplating share buy-backs as a way to return cash to shareholders.

The greater priority being given to shareholders' wishes should produce a steady flow of primary equity activity as companies unwind cross-shareholdings and demerge non-core businesses, says Mr Kirwan-Taylor. In his view, Germany and Italy are set to be the biggest source of primary equity business as family-owned companies come to market and mutual protection pacts are abandoned.

But while the long-term future of the international primary equity market is rosy, it

is still vulnerable to interruptions along the way. Indeed, only a year ago, activity came to a standstill for several months because of hostile conditions in secondary markets.

Mr Arnst believes that as long as the current ingredients of low growth and benign inflation remain, the market should not encounter many problems this year. His concern in the near term is that economic growth in the US may accelerate beyond 4 per cent, as several brokers are predicting. Such strong growth would cause an inflation scare, in which case "all bets are off," he says.

For Mr Kirwan-Taylor, the market could be adversely affected by a series of disappointing results from European companies which would raise concerns about a slowdown in economic growth.

Another development which could put the brakes on the market would be the knock-on effect on global liquidity if the flow of money into US mutual funds dries up.

■ Eurobonds: by Conner Middelmann

Further record is likely

The strength of the dollar and a more benign economic outlook have had the desired effect

If the first five months of 1996 are anything to go by, the eurobond market is heading for yet another record year.

Despite uncertainty over the direction of US interest rates and a volatile spell in the Treasuries market during the first quarter, US dollar issuance has been booming, fuelled in part by heavy redemptions of dollar bonds and the greenback's strength on the foreign exchanges. A return to a more benign economic outlook and the recent stabilisation of Treasuries has helped further.

The D-Mark sector, too, has seen much new supply, helped especially by continued advantageous interest rate arbitrage in the five-year area. Also, the growing issuance of jumbo Pfandbriefe - bonds backed by public sector loans or mortgages - has kept D-Mark volumes underpinned.

Another important trend in recent months has been

increased issuance of bonds by emerging market borrowers. With returns on most top-rated assets having fallen to relatively meagre levels, income-hungry investors have been moving down the credit spectrum to boost their portfolios' performance with juicy double-digit yields.

International bond issuance totalled \$28.8bn in the first five months of the year, a significant increase from the \$18.2bn issued during the same period last year, according to data compiled by Euromoney Bondware.

US dollar bonds remain the largest segment of the market, making up 38.5 per cent. They are followed by D-Marks which represent 19.4 per cent of bonds issued so far this year, and Japanese yen bonds which make up 8.2 per cent.

Early in the year, the US market was racked by worries over the US government's funding deadlock and the resulting freeze in economic data releases, which left investors in the dark over the likely direction of US interest rates.

"A lot of institutional investors stayed on the sidelines and kept their money in defen-

sive instruments - short-term paper or cash," says a dealer at a UK bank. "They were very reluctant to do anything but stick to their benchmarks."

Much of the slack was filled, however, by retail investors, many of whom had large amounts of cash from bond redemptions to reinvest.

According to Euromoney, some \$15bn of dollar bonds are due to mature this year, compared with \$89bn last year. February saw redemptions of \$7.9bn, March of \$9.9bn, April of \$8bn and May of \$9.9bn. December will be the peak month with redemptions of \$13.3bn.

Thus, between February and April, the market saw a flurry of short-dated dollar deals targeted primarily at European retail; their enthusiasm caused the bonds to perform so well that institutional buyers often joined in to benefit from the subsequent spread tightening.

Issuance volumes in the dollar market have been inflated by the large amount of global asset-backed securities launched this year. According to Euromoney, the first five months of 1996 saw \$25bn of dollar-denominated ABS issues, more than two-thirds of

last year's dollar total of \$34bn. Indeed, many syndicate officials grumble that the league tables of eurobonds underwriters are unfairly distorted by asset-backed deals.

"ABS lead managers always say the deals are global, but the lion's share still gets placed in the US," says a dealer, who feels this gives the big US houses an unfair advantage over their non-US competitors.

US houses hold the top three slots in the league table for the year to end-May: Merrill Lynch is at number one, holding a 7 per cent share of the market with \$20.1bn of deals; it is followed by Morgan Stanley with a 6.3 per cent share and CS First Boston with a 5.2 per cent portion.

Behind these come SBC Warburg, Goldman Sachs, Deutsche Morgan Grenfell, UBS and JP Morgan.

Stripped of asset-backed globals, mortgage-backed bonds and Pfandbriefe, the ranking looks slightly different: while Merrill remains in the lead, SBC Warburg rose into second place, CS First Boston stays in third place, and Morgan Stanley, which early this year underwrote the largest-ever securitisation, a \$4bn

issuance for GPA, the Irish-based aircraft leasing company, slips into seventh place.

But others say it is not fair to exclude ABSs. "We are seeing increased demand for asset-backed securities in Europe where fund managers are keen to lay their hands on anything that offers a bit more yield - especially something that's highly rated," says one banker. One indication of increasing European interest in ABSs was a successful DM1bn offering for Citibank in April - the first credit-card backed deal in D-Marks.

Meanwhile, the emerging markets have finally overcome the doom and gloom of 1994 and 1995 and have been rapidly increasing issuance activity.

According to Euromoney, some \$30.5bn in emerging market bonds have been issued in the first five months of the year, compared with \$45.7bn in all of 1995 and \$40bn in 1994.

That includes Japanese Samurai and US Yankee bonds, which remain popular with emerging market borrowers.

"There is a lot of liquidity around and investors want to diversify their portfolios - especially since spreads on triple-A and double-A paper have got very tight," says Mr Richard Luddington, global head of emerging market debt syndicate at JP Morgan. "In many emerging markets, the economic story looks constructive, which is also helping."

African rand denominated eurobonds - learnt that painful lesson with the 20 per cent slide in South Africa's currency in recent months.

Another risk lies in the likely surge in issuance over the coming months. The emerging-Europe pipeline includes dollar issues for Romania, Slovenia, Croatia, Russia and Kazakhstan, a D-Mark bond for Poland, and several banks and corporate borrowers. In the Middle East, Israel is planning its first dollar eurobond and is set to become a regular issuer.

In Asia, several borrowers - mainly financial institutions and corporates - are queuing up for international capital.

Latin America, too, is back with a vengeance: Colombia's government and parastatal are planning forays into various markets; Brazil is considering exchanging some of its Brady bonds for global bonds.

The country's power utility Eletrobras is set to raise 5-year dollars in mid-June, and other corporates and banks are keen to join in; Uruguay is planning a eurobond; and Argentina, which has already been a heavy borrower in the first five months, is sure to return.

This issuance pipeline may put a damper on spread performance in the coming months, some warn. "Emerging market spreads have come a long way very quickly - there may not be much more scope for narrowing in the near-term," says

Mr Luddington. However, he adds: "The trend of investors moving down the credit curve to pick up yield will continue, and the resulting supply and demand imbalance will sustain tight pricings."

He also points out that, unlike 1993, when investors were piling into emerging market bonds almost indiscriminately, "the quality of research is a lot higher now, and most investors have a clearer idea of what they're doing." Moreover, while many investors put most of their eggs in the Latin American basket in 1993, "they are diversifying a lot more now, which provides a natural hedge," he says.

Ultimately, the eurobond market's fortunes - especially for emerging market borrowers - will be closely tied to the US Treasury market.

"If US interest rates start rising, that will make life more difficult for us," says a dealer.

"In a more bearish market environment, investors' ability to differentiate between credits will become more important than ever."

But others suggest that a move to higher absolute rates could actually trigger investor demand for US dollar paper.

"Some fund managers have indicated an interest to re-praise their allocations if and when 10-year Treasury yields climb above 7 per cent," says Mr Roger Bates, director bond syndicate at Deutsche Morgan Grenfell.

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based international finan-
cial institutions are rated
AAA by Standard &
Poor's and Moody's?

How many interna-
tional financial insti-
tutions combine being
Primary Dealer in France,
Germany, the Netherlands
and Austria, with leader-
ship of both the French
franc bond market and the
short-term French franc
money market?

How many of the
top five dealers in
German Government
Bond auctions aren't
German?

A : none
B : 2
C : 1
D : 3

If you answered C, D, C, you certainly know what's what...

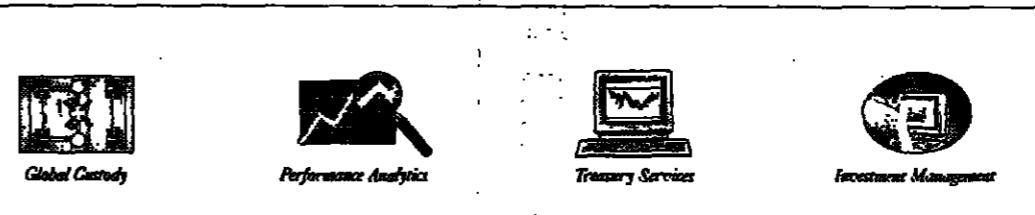
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John Langton: taking a pragmatic view

■ European single currency:
by Richard Lapper and George Graham

Contracts may be at risk

Litigation seems inevitable if the currency in which bonds are issued ceases to exist

Capital markets trade associations, European Union officials and lawyers are generating mountains of paperwork as they tangle with the potentially complex legal ramifications of the single currency.

Since the Madrid summit of European finance ministers last December underlined the European Commission's determination to press ahead with the single currency project, the amount of attention and research devoted to the problem has multiplied.

Mr Cliff Bamford, secretary general of the International Primary Market Association, an organisation which is involved in a number of separate initiatives, says: "Six months ago I had an inch of paper on my desk. It is now two feet high. There is an enormous amount of work going on."

Worries centre in particular on the potential disruption to

In the swaps markets the implications of the move to the euro could be even more problematic

long-term financial contracts that the single currency project might cause. In particular there are fears that issuers or investors in bonds, issued before currency union was first announced, might invoke the "change of circumstance" clauses of contracts, if the currency in which the bonds were dominated no longer exist.

The language in these contracts usually applies not just if either party is unable, through reasons beyond its control, to fulfil its side of the contract, but also if the nature of either party's obligations has been radically altered.

Hence, even if you could argue that it is perfectly possible to deliver euros instead of D-marks, your counterparty could still plausibly argue that the nature of the obligation has been radically altered.

Under rules announced in Madrid, a 10-year German government bond would be converted into the new European currency, the euro, at an agreed exchange rate and would pay the same rate of interest.

However, since the new currency would be likely to be weaker than the D-mark, investors might see their interest as being prejudiced and take legal action. Issuers of bonds in softer currencies like the lira, which would be replaced by the harder euro, could also see themselves disadvantaged.

In the swaps markets the implications of the changeover to the euro could be even more problematic, especially where the swap contract involves the exchange of two separate European currencies, both of which would merge into the euro.

A number of players now regard some kind of litigation as inevitable and are working to reduce its potential scope and impact on the market. "We are taking a pragmatic view that litigation will almost inevitably happen," says Mr John Langton, chief executive of the International Securities Market Association. "At the end of the day we know someone is going to go to court. That is quite clear."

Mr Colin Bamford, chief executive of the Financial Law Panel in London, says that in most cases a body of international private law covering

monetary issues should prevent disputes. This provides that jurisdictional authority in the event of a dispute is ceded to the courts of the country which has introduced the new currency.

But he says problems could emerge with more unusual contracts "relying on a finely balanced relationship between currencies. The concern is that you disrupt the underlying purpose so that the parties no longer have what they started out with," he says.

In any event, legislation being prepared by the EU should at least limit the scope for dispute. A draft of an EU regulation - a legislative instrument which has more direct effect than a directive - is expected by the end of the year and should make it clear that the change of circumstances provisions would not be triggered by the introduction of the single currency, unless the parties had specified in their contract that they should be.

Lawyers are divided about how detailed the regulation should be: should it state a simple principle of the continuity of contracts or should it be more prescriptive, envisaging in the words of one observer "thinking of all the problems you can think of and covering them all"?

To complicate matters further, it is understood for example that two EU directorates - DG2 and DG15 - as well as the European Monetary Institute - are preparing their own versions of the regulation. Against this background a City of London working party, set up by the International Swaps and Derivatives Association (Isda), the London Investment Bankers Association (Liba), the British Bankers Association (BBA) and the International Primary Markets Association, submitted its own version of a draft regulation to the EU last month.

Separately, the Financial Law Panel, together with officials from the EMI and the EU, is making progress on another front. The panel, set up by the Bank of England and the City Corporation in 1993, is carrying out a study of the impact of the single currency in the main financial and trading jurisdictions outside the EU. "We need to find out exactly what the position is under Japanese or New York law," says Mr Bamford. Many swap mar-

Trade associations are beginning seriously to address administrative issues

ket transactions are worded according to New York state law, for example.

Elsewhere, Isda has four working parties looking at the legal, accounting, tax and other implications of the single currency in the swaps markets, while a range of other bodies - including the City of London Law Society, the BBA and Liba - are also involved in a series of separate initiatives.

Meanwhile, at a more practical level trade associations are also beginning seriously to address administrative issues. At present, the bond market conventions vary in different European markets. The calculation of accrued interest and settlement times, for example, may seem highly technical but is significant for those involved.

Mr Langton is confident that the markets can develop ways to treat these issues in a uniform manner. But he acknowledges there could be short-term difficulties. Above all, though, there is an increasing pragmatism about the market's approach. "It is going to go ahead and one has to work on that premise," he says.

■ Government bond markets: by Samer Iskandar

Fall in volatility forecast

The next changes in interest rates are likely to be part of a process of fine tuning

Almost halfway through 1996, the direction of the main government bond markets is still unclear. In retrospect, the previous - very volatile - two years seem to have been almost predictable.

One main source of uncertainty is the direction of US Treasury bond yields, from which most international markets derive their inspiration. Mr Ian Beauchamp, chief economist at Hambros Fund Management, predicts that the yield on the 30-year US Treasury bond will trade down towards a range of 6.0 to 6.5 per cent, from its current range of 6.5 to 7 per cent. But Mr Paul Abberley, head of fixed income at Lombard Odier, is less optimistic and does not rule out a rise in the long bond's yield to around 7.5 per cent before the year-end, especially if releases of economic statistics continue to show upward pressure on wages.

However, despite their differing projections, most analysts have one view in common:

they predict a noticeable decline in the volatility of bond prices in the coming months. Mr Abberley explains that "the difference with 1994 is that (market participants) today are more relaxed about inflation". And he does not foresee any dramatic change in inflationary expectations.

According to Mr Abberley, the economic situation - and consumer behaviour in particular - is such that inflationary pressures are "very unlikely to be passed on to the final consumer". An increase in wages, for example, would destroy itself by stifling growth before it is reflected in the prices of final goods.

Mr Beauchamp at Hambros concurs. He is convinced that several consecutive years of stable and moderate inflation - in the range of 2 to 3 per cent annually in the US and the main European countries - have finally altered traders' perception of monetary policy, reinforcing the belief that inflation is under control. While most bond markets fell some 20 percentage points in 1994 and rose by approximately as much in 1995, the volatility of future trends is likely to be more limited.

Although interest rates in the coming months - as reflected in the prices of

futures contracts - are expected to rise during and after the summer, Mr Beauchamp does not detect any fear of durable monetary tightening. "Market participants now realise that the next changes in interest rates will be part of a process of fine tuning". Only a brutal and unexpected surge in prices, a very unlikely occurrence in the opinion of most experts, would change traders' perception that central banks now have inflation under control.

Other important events also took place since the beginning of the year, including the cross-over of German yields below those of US treasuries. This was made possible by the expectation that the US Federal Reserve would soon be compelled to raise interest rates to quell inflationary pressures due to an unexpectedly tight labour market. Meanwhile, strong indications that the German economy was about to witness a second consecutive quarter of negative growth revived expectations of rate cuts by the Bundesbank. This led to speculation that the German market was "decoupling" from the US, or gaining the freedom to rally against the background of a retreating Treasury market. But after some short-lived optimism it became clear to analysts that de-coupling was, at best, a relative concept. "What it means," says said one trader, "is that bonds can outperform treasuries temporarily. But nobody expects the German market to rise continuously against a falling US market."

The convergence of Europe's higher yielding markets towards German bond yields was also one of the most significant events of the past few months. Since the end of 1995 the 10-year yield differential between Italian BTBs and bonds narrowed from 475 basis points to around 300 basis points. Over the same period French OAT yields erased a 1 percentage point premium over German yields and even traded at a yield discount on more than one occasion. Irish, Spanish and Swedish bonds followed a similar pattern. Expectations that the Italian lira will re-enter the European exchange rate mechanism perhaps even before the end of this month.

"In the current inflation outlook, 250 basis points represent a fair inflation premium" given the two countries' inflation record, says Mr Abberley. Many economists are confident the convergence process will continue in the coming months. Mr Abberley at Lombard Odier and Mr David Brown, chief economist at Bear Stearns in London, both expect the Italian 10-year spread over



Paul Abberley does not rule out a rise in bond yields

Germany to tighten to around 250 basis points. This view is bolstered by strong hopes that the Italian lira will re-enter the European exchange rate mechanism perhaps even before the end of this month.

Analysts also depict a bleak outlook for UK gilts, citing rising political risk, as well as a larger-than-announced public sector borrowing requirement, now widely believed to surpass the £30bn level for the current fiscal year.

But bearishness reaches new limits on Japanese bonds. Although BZW recommends an "aggressively underweight" stance, some market participants are even more pessimistic.

"Is it possible to achieve a positive yield in a market where the government is simultaneously seeking to devolve its currency and raise interest rates?" asks one trader.

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4 INTERNATIONAL CAPITAL MARKETS

■ Syndicated loans by Nigel Pavey

Borrowers face a tougher line

Lenders are now more astute, looking for firm proposals instead of vague promises

The spectacular borrowing boom in the international syndicated loan market looks set to slow over the next few months with volumes falling from record levels and lenders taking a tougher stance against over-ambitious top rated borrowers.

Bankers engaged in the syndicated loan business have been enjoying unparalleled volumes over the past two years - driven by falling margins, longer tenors and more relaxed loan documentation. In such an environment, many of the market's top borrowers have chosen to refinance existing loans and lock-in aggressive pricing well into the next decade. Few deals have failed to sell and the market is now catering for a more diverse group of borrowers than ever before across the full credit spectrum.

The syndicated loan is firmly re-established as a favoured instrument offering all manner of borrowers the cheapest and most flexible source of funding in the armoury of instruments available in the international capital markets.

Over the past two years pricing has fallen by some 40 per cent annually and is now at levels not seen since the late 1980s. For top-rated borrowers, pricing has clearly bottomed out and there are already indications that lenders are starting to take a tougher stance towards this group of borrowers - although there are no signs of upward moves as

yet. Most senior bankers feel that pricing is unlikely to rise, and instead that a more rational approach is being adopted in lending to top quality names than was the case just a few months ago.

Several recent syndications show that a top credit rating no longer assures a borrower of the solid support of its bankers and that lenders are starting to look at the overall relationship they have with a corporate to seek justification for making thinly priced loans.

Well-regarded borrowers with plenty of ancillary business to hand round to their relationship banks are still enjoying unparalleled access to cheap bank finance.

Companies such as Veba and Merck easily achieved significant oversubscriptions with their loans. South African-based Anglo American Corporation of South Africa achieved a tremendous success with its debut \$1bn revolving credit. The facility, which commanded fine pricing, showed that five-year money was available to South African corporates and set the new benchmark for that country.

French social security deficit financing agency Caisse d'Amortissement de la Dette Sociale (Cades) showed just what can be achieved in the syndicated loan market with its inaugural FF760m financing. The facility, which marked the start of a FF140bn financing programme, was split between a one-year portion priced at 4 basis points over Libor and a five-year facility priced at just 6 basis points above Libor. This pricing was the finest yet seen by the syndicated loan market and came well inside that paid by other European sovereigns.

Cades, with its plethora of business to offer international banks over the coming years, had no difficulty in achieving a very heavy oversubscription through the carefully managed operation. Demand for the facility was much greater than had been anticipated, although fewer than 70 banks were invited to participate. Even so, there were several surprise turn-downs in syndication.

However, the recent syndications for CS Holding, National

However, their places were filled by other banks.

Lenders are now becoming much more astute in their lending analysis with many employing sophisticated risk/return model that used to be satisfied - and with pricing now so low the level of ancillary business on offer is crucial. One senior London-based banker notes that "ancillary business is now becoming a very mature debate. We are no longer looking for vague promises."

stability and realise that, above all else, lenders want to earn fee income from their ongoing relationships. With this in mind, many corporates have been reducing the number of banks in their syndicates to a size where all parties can realistically have the opportunity of a profitable relationship.

The caution creeping into the market at the top end of the credit spectrum has not,

however, spread throughout the syndicated loan market. As the volume of business from leading investment grade credits starts to wane, competition for mandates from smaller companies has never been more intense. Pricing for second-tier names is consistently falling and this is likely to be a major theme for the rest of 1996 with fewer basis points separating the different types of credits accessing highly liquid bank lenders through the syndicated loan market.

Over the past few months many middle-sized companies from Scandinavia and, to a lesser extent the UK, have been making their debuts in the market with relatively small deals on similar terms to those won by the best names just 18 months ago.

Competition for such business is very intense with more syndication teams in existence today than ever before. The recent wave of bank mergers has done little to reduce competition in the loan market, which is still experiencing very high levels of liquidity. With pricing already at such low levels, there is little room left for arrangers to negotiate in. In some cases, this is leading to status-conscious lenders offering some remarkable terms to potential borrowers. Says one top arranger: "If I believe all

isises, but instead firm proposals." This is a sentiment that is increasingly shared by many of the market's major lenders.

As another senior banker observes, a little bit of reality is creeping into lending decisions. In the highly competitive banking market, most active participants are looking to either protect existing business or have well-defined offers of new business to justify their support for cheap corporate loans.

To an extent, the more

sophisticated borrowers are starting to understand that their lenders are becoming very concerned with what one bankers calls relationship prof-

Volume of international loans by region 1995		
Region	Amount (\$bn)	Number
Supranationals	0.3	3
North America	37.3	128
Western Europe	264.2	1,114
Eastern Europe	8.8	141
Middle East	20.8	115
Africa	6.3	66
Indian subcontinent	5.9	95
Asia	74.2	1,116
Australasia	12.7	54
Latin America	22.7	27
Caribbean	7.2	-
TOTAL	470.5	3,083

Source: Euromoney Loanware

advanced and emerging market economies.

Many borrowers, particularly in Germany and Scandinavia, have a greater understanding of what can be achieved through syndications - especially at a time when there is plenty of capacity for new loans. Over recent months, the syndicated loan market has embraced a number of leading international corporates, such as Siemens, for major liquidity backstop facilities on the very finest of terms.

Such companies see the instrument as an effective way of locking in very cheap international liquidity. The coming months will see more of this type of business. For example, a number of leading German corporates are lining up to tap the market for the first time with DM5bn of facilities already mandated but not yet launched.

The syndicated loan market is also playing a major role in introducing emerging market borrowers to the international capital markets. Competition for such business is very intense. Although spreads are under severe downward pressure, the margins paid to lenders are still high compared to other lending opportunities. Such debut financings are seen by many bankers as an important method through which to establish relationships that can be developed over time with these clients.

Borrowers based in Eastern Europe, South Africa, the Middle East and Latin America have never had such excellent access to cheap international finance as is available through the syndicated loan instrument. Competition is constantly forcing down pricing for this type of borrower and recent facilities arranged for Middle Eastern borrowers such as the State of Qatar, Gulf International Bank and the Sultanate of Oman have all seen seven-year tenors achieved on very competitive terms.

While bankers are hopeful that a few tough syndications will lead to higher margins, this is unlikely to occur across the board. Pricing for top rated borrowers may be unlikely to decline further, but for lower-tier credits it still has some way to fall in a market that still has plenty of capacity, with more players as both arrangers and providers than ever before. Indeed, pricing in the syndicated loan market has

Continued on next page



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■ Asset securitisation: by Antonia Sharpe

Opportunities to make money in Europe

The area is evolving as a viable alternative to bank loans as companies seek finance

Asset securitisation, once one of the least promising areas of investment banking in Europe, has finally come into its own following a series of landmark transactions over the last year.

But asset securitisation has made it into the mainstream of investment banking in Europe in a completely different guise from that it has taken in the US, where this form of financing was spawned. In the US, there is a trillion-dollar market in securities which are either backed by mortgages or by other assets such as credit-card receivables.

Although there has been some progress in getting banks in Europe to turn to securitisation as a way to free up capital by issuing bonds backed by mortgages or other loans, the lack of large, homogeneous pools of assets has limited the development of an asset-backed securities market in Europe.

"Each market in Europe is quixotic," says Mr Karl Essig, managing director and head of international securitisation at Morgan Stanley. He adds that while there may be a fair degree of issuance in one year, it may drop off the following year. "In Europe there is no equivalent of GMAC or Citicorp," he says, alluding to two of the main providers of asset-backed securities to the US market.

The lack of the economies of

Securitised bonds are welcomed for their higher yields at a time when interest rates are low

scale in Europe has prompted some of the US banks which are big players in their domestic asset-backed market to throw in the towel in Europe. But for those banks which are committed to promoting securitisation as a global product, the opportunities to make money in Europe are coming through, though in ways which were not obvious when securitisation was first exported from the US.

For rather than being adopted as a way to recycle capital by securitising mortgages or credit-card receivables, in Europe securitisation is evolving into a viable and often cheaper alternative to bank loans when companies want to finance an acquisition or to restructure their balance sheets.

Mr Essig says securitisation has become accepted in this form because the capital markets in Europe are not deep enough for companies, especially those with inferior ratings, to raise the necessary funding.

"The only way for such companies to access capital is to find a set of cash-flows and turn them into rated debt instruments which investors will buy," says Mr Essig.

This is essentially what GPA, the Irish-based aircraft leasing company, did in order to avoid coming to a stand-still situation with its bankers. By issuing \$4bn worth of bonds backed by aircraft leases, not only was it able to repay \$2.5bn worth of bank and other secured debt but it also significantly reduced its funding costs.

Mr Essig says that while the banks loan GPA 75 per cent of the value of its leases at 2 per cent over the London interbank offered rate (Libor), when the leases were securitised, GPA was able to borrow 87 per cent of the value of the leases.

Borrowers

Continued from previous page

only over seen across the spectrum if an external event occurs

With volumes expected to fall in the last six months of the year, a number of the market's leading houses are starting to review the business in the search for new activities. The secondary loans market is clearly attracting plenty of management time. In an environment where lenders are scrutinising returns more actively than ever and unprof-

■ Samurai bonds: by Emiko Terazono in Tokyo

Why rise in demand may not last

Deregulation of the Euroyen market could still wipe out its more expensive alternative

The search for yields among Japanese investors, whose domestic returns have plunged due to record low interest rates, has boosted the increase in high-yielding samurai bonds, the yen-denominated paper issued in Japan by foreign borrowers.

Some bankers argue that the GPA deal was more of a US deal, because the vast quantity of the bonds were placed with US investors. But the rationale behind the GPA deal is evident in other European deals, such as the recent plan by four Spanish electrical utilities to issue asset-backed securities to clear Pta715bn (\$5.45bn) of debt accumulated in connection with the mothballing of nuclear power plants 12 years ago.

In the UK, some headline-grabbing transactions have established securitisation as a viable financing tool to fund off-balance sheet acquisitions. One such deal was the £1bn mortgage-backed bond offering from Birmingham Midshires Building Society which helped to fund its purchase of a £1.8bn residential mortgages portfolio from Germany's HypoBank.

Mr Bruce Bantz, global head of asset securitisation at NatWest Markets, which arranged the transaction, explains that rather than putting the whole portfolio on its balance sheet, Birmingham Midshires placed £1bn of the mortgages bought from HypoBank into a special purpose vehicle which then issued bonds to investors.

The interest on the bonds will be met by the mortgage payments but Birmingham Midshires will make money from servicing the portfolio.

Mr Bantz says that this use of securitisation is an efficient way for UK financial institutions to increase their market share at a time when the UK mortgage market is stagnating. He expects similar deals to emerge in the coming months as the sector continues to rationalise. "The market here is finally saying, 'Yup, securitisation is a legitimate way of raising money,'" says Mr Bantz.

Investors are also welcoming the increased flow of securitised bonds because they carry a higher yield than conventional bonds, at a time when interest rates are low.

But perhaps the most innovative use of securitisation in Europe has been pioneered by Nomura, the Japanese securities house. Nomura stunned London's financial community last November by using it to fund a £672.5m acquisition of a passenger rail rolling stock leasing company from the UK government.

Mr Guy Hands, managing director and head of Nomura's principal finance group, says that by using securitisation to fund the acquisition, Nomura was not only able to outbid its competitors but it also reduced the company's funding costs by about £100m over the next seven to eight years. In addition, Nomura earned significant fees for putting the deal together.

Mr Hands says that for Nomura "securitisation is an exit vehicle for its principal finance business". Principal finance essentially involves Nomura using its own capital to underwrite an acquisition - in this case the leasing company - and then makes money by selling bonds backed by these assets on to investors.

Such are the gains to be made that principal finance has become Nomura's most profitable activity and contributed greatly to the profit turnaround in its European operations.

Indeed, securitisation is expected to play a large part in the financing of bids when the UK government sells off 58,000 Ministry of Defence homes, a deal which is expected to raise more than £1.5bn.

Groups led by Morgan Stanley and Lehman Brothers, Nomura, and ING Barings, the Dutch-owned investment bank, have been selected from 19 initial offers to go forward to the next stage of the bidding process.

stable relationships are being terminated, the rationale for a more developed secondary market is persuasive.

One senior banker observes that "as a stand-alone business, syndication is a loss leader". With banks starting to focus on their portfolios, he adds that customers need to be educated that banks must be able to manage their business as well. Even if this is only partially achieved, then the secondary market in international loans could be about to take off.

to a record Y2,108bn, with purchases by retail investors accounting for 52 per cent. Recent demand has centred on dual currency samurai bonds where investors buy the bonds in yen and receive interest or repayment of the principal in foreign currencies.

But in spite of the sharp rise in demand for samurai bonds, the Euroyen market remains the leading source of yen capital for overseas borrowers as fundraising on the samurai market means higher costs and the insufficient reflection of high credit ratings on bond yields.

With many borrowers still turning to Euroyen bonds due to the additional fees arising from the mandatory appointment of trustee banks and other disincentives in the samurai market, analysts warn that the current deregulation of the Euroyen market could eventually wipe out the samurai bond market.

Samurai bond issues for the business year to last March surged 67 per cent on the year

warns that the samurai bond market could face an eventual "hollowing out" with issuers abandoning it for other methods of capital-raising unless changes were implemented.

The leading problem is the

Costs in issuing samurai bonds are pushed up by trustee banks, which act as guarantors of the bonds

higher level of issuance fees and other charges compared to the Euroyen market. Fuji points out. Since the bulk of samurai issues is taken up by individual investors, the samurai underwriting business has been difficult for the foreign brokerages to crack. Japanese brokers have thus managed to keep underwriting fees relatively high, due to the lack of competition from foreign investment houses.

In fiscal 1995, the Big Four

securities houses - Nomura Securities, Daiwa Securities and Nikko Securities - lead managed 91 per cent of all samurai bond issues, down four percentage points from the year before. Although brokers affiliated to the leading commercial banks posed some competition, the Big Four has managed to maintain its ground.

Costs in issuing samurai bonds are also pushed up by the existence of trustee banks, which act as guarantors of the bonds. In total, samurai bond issuers pay 0.79 per cent of the issuance amount in fees, almost triple that of 0.26 per cent for Euroyen bond issues.

Meanwhile, borrowers with high credit ratings have been discouraged by the fact that their creditworthiness fails to reflect on their yields. Since the bulk of demand for samurai bonds has come from retail investors who tend to search for higher coupons regardless of the borrower's credit rating, issuers with low ratings have managed to attract more investors, hence lowering the overall yield.

The trustee bank system has contributed to the price deviation since the bank provides a full back-up if the borrower goes under, nullifying the significance of a credit rating.

This has led to the decoupling of credit ratings and borrowing costs, giving companies with high ratings all the more reason to turn to the Euroyen market. The samurai market instead has attracted borrowers with low ratings, such as

Every time bonds are issued, official documents must be submitted to the ministry of finance

the governments of Brazil, Mexico and Turkey, triggering some underwriters to name it Japan's "junk bond" market.

Indeed, according to Fuji, 60 per cent of the samurai issuers in 1991 were those with a triple A or double A rating, while in 1994, issuers with a single A rating or a triple B rating accounted for 60 per cent of the total.

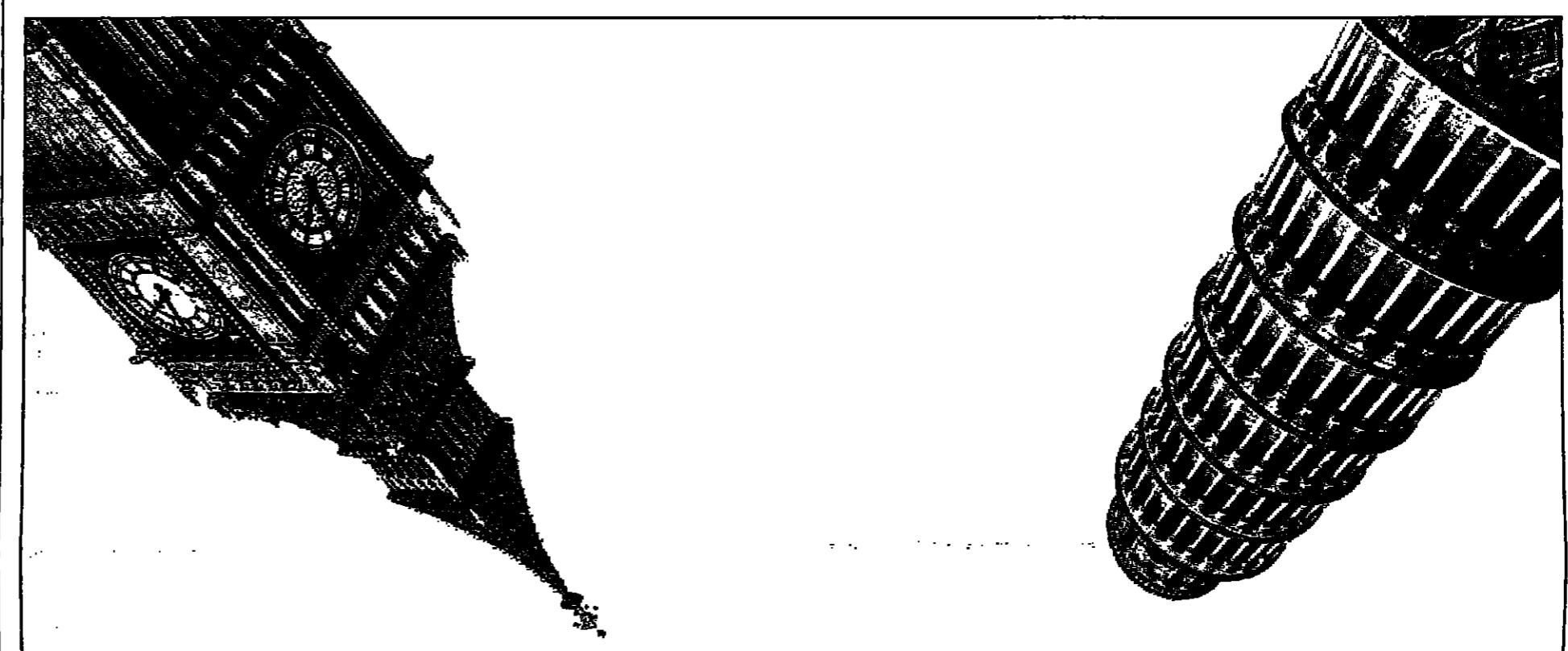
The lack of high grade issues has depressed buying of samurai bonds by Japanese institu-

tions, which are usually restricted to investing in papers with high credit ratings. Institutional investors are also turned off by the prices which deviate from market conditions and ratings. In 1995, buying by insurers only accounted for 3.3 per cent of the total, while investment trusts bought 0.2 per cent.

Another problem is the cumbersome paperwork involved in the issuance. Unlike Eurobond issues where borrowers can freely issue bonds under the medium-term note method without re-registering with authorities, samurai bond issuers need to submit official documents to the ministry of finance every time paper is issued.

An increase in competition among underwriters to cut issuance fees, the removal of the trustee system and emergence of a pricing mechanism which reflects credit ratings are crucial for the survival of the samurai market. These anomalies also apply to Japan's straight bond market.

Japan's bond markets will lose the chance of bearing international significance unless these barriers are addressed. Market participants and financial authorities must try to enhance their attractiveness for borrowers.

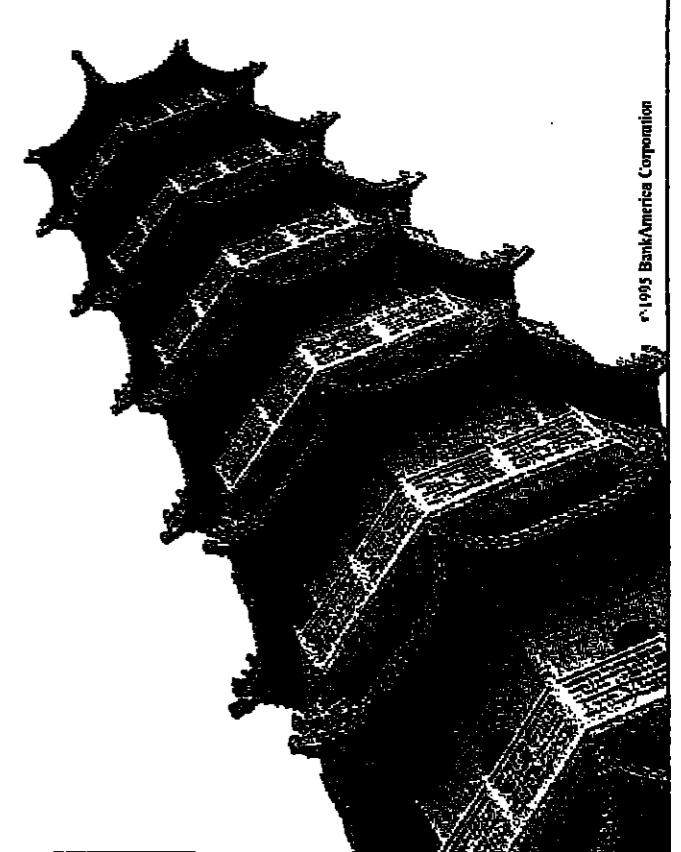
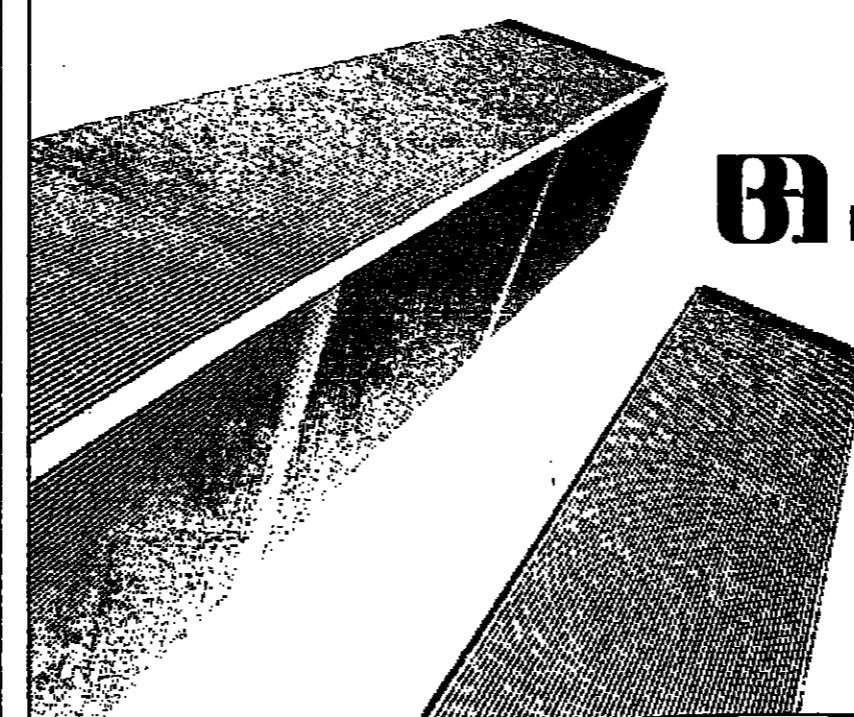


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6 INTERNATIONAL CAPITAL MARKETS

Credit rating agencies: by Lisa Bransten in New York

'Pay us - or pay the price'

Why the US Justice Department is looking at the practice of unsolicited ratings

Unsolicited ratings have been a cause for complaint among bond issuers in the US and around the world for a number of years, but until recently little has been done about it.

Earlier this year, however, the US Justice Department initiated an investigation into the ratings practices of Moody's Investor Services - the US credit rating agency that along with Standard & Poor's dominates the field of rating the creditworthiness of bond issuers.

The Justice Department probe is focused narrowly on Moody's practices in the US asset-backed and mortgage-backed markets and in the market for municipal bonds, but some hope that the probe will have a chilling effect on the practice internationally.

Most credit ratings are requested by bond issuers that pay the rating agency for the service, but in some cases the agencies will issue ratings unsolicited - and thus at no charge - as a service to investors. Such ratings are

extremely important because they play a large part in determining how much interest companies and countries have to pay on their debt.

S&P says it does not issue unsolicited ratings as does IBCA, the European ratings agency.

However, it is not the practice of unsolicited ratings, but rather the way they may have been used to maintain market share, that is at the centre of

Ratings help determine how much interest companies and countries pay on their debt

the Justice Department's antitrust investigation. Issuers have complained that they are forced to pay for unwanted ratings out of fear that if they do not they will receive lower ratings and wind up paying more for financing.

"They're saying either you're going to pay us or you're going to pay in the market," says Mr Mark Gross, a senior vice-president in the New York subsidiary of IBCA, of the accusation

against Moody's.

An executive who runs a ratings advisory service for one of Wall Street investment bank says that he always tells his clients to co-operate with a rating agency rather than accept an unsolicited rating. "If you actually go through the process of spending a day with Moody's, chances are you will get a better rating," he says.

Moody's says it does on occasion issue unsolicited ratings, but at the same time it denies that they are part of an attempt to force an issuer into a paid rating.

The agency does not say whether any particular rating is paid or not, but several observers believe that the agency's ratings of several Gulf State countries were unsolicited.

Mr David Beers, managing director of the sovereign ratings unit at S&P, says that the Moody's ratings of Qatar and Oman were released just days before S&P came out with paid ratings on those countries.

But Moody's did not give both countries ratings lower than S&P's. Both agencies gave Oman's senior foreign debt investment grade - although Moody's ranked the country a notch above S&P - and they split over the rating of Qatar. S&P put Qatar one step into

investment grade, while Moody's put it one step below investment grade.

Yet despite all the controversy and the differences among the rating agencies, recent analysis has shown sovereign ratings to be remarkably uniform across nations.

In a study released in April, Mr Richard Cantor and Mr Frank Packer* of the Federal Reserve Bank of New York found that Moody's and S&P

investment grade, while Moody's put it one step below investment grade.

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higher ranking from S&P. Moody's rated Indonesia and South Africa one notch into investment grade territory, while S&P ranked them both a notch below investment grade.

About 17 other ratings differ by a few notches but are in the same general range. A statistical analysis in the Cantor-Packer paper of the economic data that the agencies use to assign their ratings reveals that Moody's is more inclined to hold high external debt against a country and less likely to count default history against a country. S&P is more likely to assign a higher rating to a country with a high per capita gross national product.

The importance of ratings is made clear by another part of the study, which indicates that the investment-grade sovereign debt tends to trade with yields very close to those of similarly rated debt. Sub-investment-grade sovereign debt from emerging market nations, however, trades at substantially wider spreads to US Treasury bonds than similarly rated junk bonds.

As of late May, the agencies were split between investment grade and non-investment grade ratings on only three of the 55 countries that both rate: Qatar, Indonesia and South Africa.

Qatar was the only one of these three cases to receive a

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ROGER BEVIL

In addition, sovereign ratings are important to corporate issuers because the agencies assign corporate debt a rating higher than that of the country where it is domiciled.

Thus, whatever the outcome of the Justice Department investigations, the competition to secure a high rating and therefore the impetus for countries and corporations to

co-operate with the rating agencies is likely to continue.
*Determinants and Impacts of Sovereign Credit Ratings, Federal Reserve Bank of New York Research Paper #9608.

Settlement and clearing: by Margaret Morris

A tale of gallant bond rivals

The business of Euroclear and Cedel has spread from eurobonds to other instruments

Think Euroclear or Cedel, and eurobonds come to mind. It's true that these clearing houses were set up to settle eurobond trades and later handled all manner of international securities that otherwise did not have a home market.

But the business of Euroclear and Cedel Bank has changed. A greater portion of their turnover now comes from settling trades in domestic bonds and reflects the growing sophistication of international investors. Today, Cedel handles 75,000 different securities and financial instruments, Euroclear a similar number.

International investors buying, say, German bonds, have a choice. They can settle the trade through a local institution in Germany, or through Euroclear or Cedel. Last year, Euroclear handled \$16,500bn in domestic securities (defined as securities that have another native market), up from \$14,000bn in 1990.

What Euroclear and Cedel offer is an efficient settlement process - at Cedel over 95 per cent of trades settle without a hitch - and an ease of access

to a pooled, multi-currency securities portfolio. In the international clearing houses, that bond is easily available to be used as collateral on another deal in another currency. To use the bond as collateral in the UK, if it is held in a German bank is a far more cumbersome process.

The ability to pool securities and cross-collateralise an entire bond portfolio is found only at Euroclear and Cedel today, and is a major reason for the growth in business at these institutions. "The reason to use an International Central Securities Depository," says Martine Dinne, a managing director at Euroclear in Brussels, "is to optimise your securities holdings. Investors don't want to sit on long positions; they want to repo or lend out their securities."

Both Cedel and Euroclear offer highly automated repo and securities lending as part of their core service and can support any type of collateralised financing. These services are a boon to the investor, but expensive for the borrower. As Ms Dinne points out: "Many customers find that they are ahead, because after paying for the custody and settlement services, we then pay them their lending fees. In most cases, the net result is a profit for the customer."

Competition between Euro-

clear and Cedel is intense.

Euroclear has had a clear advantage in certain parts of the business. For instance, it was first to introduce tri-party repo, a mechanism whereby a third party holds the collateral presented in the repo for the term of the deal. Through the four months ended in April, Euroclear had a turnover of \$15bn in tri-party repo, claiming a market share of up to 70 per cent. However, Cedel and Bank of New York, the other two main players in the market, might dispute that.

But the real issue has always been Cedel's ability to attract a critical mass of investors, banks and broker/dealers to provide the give-and-take that makes the borrowing and lending services work. Within the last few years, Cedel seems to have put this worry to rest, as its growth in turnover has matched Euroclear's on a percentage, if not an absolute, basis.

Cedel has attacked the issue on two fronts. In 1994, Cedel was reorganised and received a banking licence in Luxembourg. This step was necessary in 1993 that allows transfers to occur quickly. But that said, most clients will use one or the other for most business, because there are pricing and economic advantages in consolidating the account. With few exceptions, the two institutions

are equipped to handle identical securities.

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introducing an expanded collateral management programme, order routing for securities through its Liberty subsidiary and is pushing to bring equities in more markets into its system.

These efforts are all in the

early stages, so it is hard to tell whether they will have the desired effect on Cedel's turnover.

The collateral management system designed to facilitate collateralised over-the-counter derivatives transactions, is being tested at the moment. "We put together a pilot group of eight end-users to find out what they wanted from a collateral system. That's the system we built," says Cedel's Mr Wakem.

Roll-out is scheduled for later this year, but may meet some competition. Bankers Trust and Citibank have such systems available already and exchanges in the US such as the Chicago Mercantile Exchange and the Chicago Board of Trade are launching collateral management systems later in the year.

The next big change on the horizon for both Euroclear and Cedel is the advent of real-time settlement. A misunderstood buzzword to many, RTS should be starting in both services later this year and will be fully operational in 1998. But what it really means is that the time a trade stays with Euroclear or Cedel will be dramatically shortened, not that trades can be settled instantaneously. Euroclear and Cedel clear trades through local exchanges.

If that exchange is on T+3 (trade date plus three days) the trade can't settle any faster than that. "RTS within our system will allow us full flexibility to settle transactions with domestic markets in different time zones, rather than through the twice-daily batch processing we now use. Information will get to our clients faster," says Ms Dinne.

Cedel has also cast its net wider in terms of new product development. Euroclear, by its own account, is sticking to clearing, settlement, collateral management and securities lending and borrowing, with the aim of improving these services year after year. Cedel is

With 137 countries connected, there is still the prospect of further potential growth.

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"This is where the volume will come from."

Swift, an acronym for the Society for Worldwide Interbank Financial Telecommunications, is a bank-owned cooperative supplying secure messaging services and interface software to more than 5,200 financial institutions, set up in 1977.

Messages, which conform to industry-agreed standards,

typically cover areas such as confirmation and settlement instructions of trades generally conducted by telephone.

The system can help dealers and buyers reduce costs, since at present many are linked by systems which are incompatible. Charges for messages carried over the system now range from BFr1 per message between destinations which are part of the same institution, compared with a range of between BFr6 and BFr15 previously. In addition, the fee paid by users when they join the system was reduced by 70 per cent to BFr200,000. Shareholders pay BFr400,000.

"Capital markets players were finding Swift expensive to justify. The joining fee was too high and this was an obstacle," says Mr Sellar. Volume and revenue growth overall and a tight rein on costs made the price cut possible. Against a rise in revenue from \$396m in 1993 to \$418m in 1995, Swift was able to offer its members rebates of \$52m in 1993, \$30m in 1994 and \$39m in 1995.

Interbank payments are still

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■ Project finance: by Brian Bollen

Too many banks chase too few jobs

A suddenly fashionable trend could in the long run present new risks

Project finance is growing and changing before our eyes. On the supply side, change is being driven partly by the greater number of projects becoming suitable for the project finance approach. As privatisation rolls out geographically and governments respond to fiscal pressures by putting infrastructure construction and improvement projects out to private sector bidding, the requirement for private sector finance has increased. The demand side is being driven by the hunt for higher yielding assets.

This suddenly fashionable trend could in the longer run itself present new risks. Infrastructure finance could become the real estate of the 1990s, warns one banker. There are too many banks with too much capital chasing too few projects. Pricing is being driven down and covenants are being weakened.

Recent growth in the market is illustrated by figures compiled by IFR Project Finance International magazine to

measure the volume and value of advisory mandates, new lending and bond issues in the sector. According to these figures, the total project finance market grew to \$27.1bn in 1995, up 53 per cent on the previous year. By far the bulk of the figure was for new loans booked; these rose by almost 71 per cent in 1995 to \$23.3bn. The balance was made up by bonds, the total for which fell back slightly to \$3.8bn, as a direct result of the Mexican crisis in December 1994.

According to IFR PFI, the main driving force in the increase in loans was a jump in Asia from \$4.2bn in 1994 to \$9.3bn in 1995, and, perhaps most surprisingly, an increase in the Americas from \$2.9bn to \$7.5bn. Europe remained static at around \$6.4bn.

The number of advisory mandates awarded around the world in 1995 grew to 973 from 789 the previous year. The growth was most pronounced in Asia where the number of prospective schemes continues to grow. Numbers grew in Europe too, perhaps mostly from the growing number of UK Private Finance Initiative projects being proposed. A certain amount of scepticism remains, though, as to how many of these proposals will make it

off the drawing board. Telecoms, power, water, transportation and other infrastructure projects are the main generators of activity. Worldwide, more loans were arranged for power projects (\$8.7bn) than for any other sector.

Deutsche Morgan Grenfell came top of IFR PFI's league table for new global advisory mandates in 1995, with Fieldstone, Bank of America, Schröder and Morgan Stanley filling the next four places. On the lending side, Bank of America topped the table for global lead arrangers, underwriting almost \$2.6bn of loans for projects worth over \$7bn. ABM Amro, Chase, Citibank and BEZW made up the rest of the top five.

In the best of all possible worlds, major projects would be financed by domestic capital markets. The scale of the sums and the immaturity of markets in many of the countries involved preclude this. The bulk of project finance has

traditionally taken the form of long-term high margin commercial bank lending, with a significant portion of equity. The projected huge gap between the supply of and demand for capital dictates that new sources of finance other than commercial banks, export credit departments, multilateral agencies, and sponsors must be tapped.

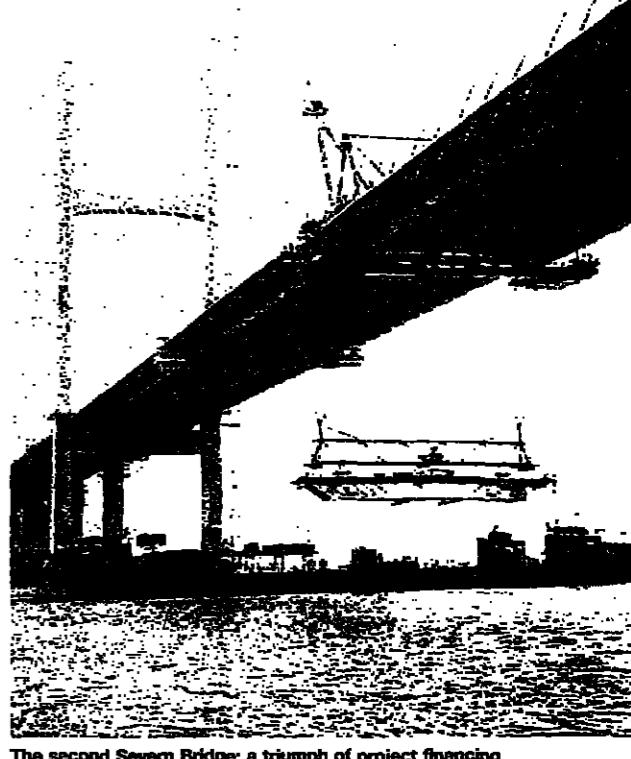
There is growing optimism that as markets become more sophisticated, international bond investors, who are seeking ways to boost their returns now that good sovereign and corporate yields have dropped to very low levels, might be tempted into the world of project finance. "We could see a growing partnership, as in the US, between commercial banks and capital markets," says Mr Jeremy Thirlby, head of project finance at UBS in London.

Capital markets are more expensive, and in many ways less flexible than bank loans, but they do offer greater capacity and liquidity. J.P. Morgan argues that Indonesia's Java Power Project, on which it was financial adviser, is the blueprint of a successful project financing. Not only was the financing in place within a very short period of time at maturities significantly longer than that of

Indonesian sovereign debt, but it also allowed the sponsors to tap new sources of financing through a private placement of senior notes with US institutional investors.

"While some might argue that there have been such financing structures in previous projects, what makes Java Power a first in this respect is that no completion guarantees by the sponsors have been offered," says Mr Tim Leissner, a vice-president at J.P. Morgan in London. "The institutional investors assume construction as well as operating risks."

From the sponsors' perspective, the inclusion of a private placement has both economic and strategic benefits. The private placement provides a 10-year grace period before the notes amortise over the remaining five years. In addition, like all project sponsors Siemens and PowerGen were keen on developing new relationships with providers of long-term debt financing. The success of Java Power in combining traditional sources of financing from commercial banks and export credit agencies with a capital markets issue has opened new financing options for future projects, claims Mr Leissner. BEZW points to its experience



The second Severn Bridge: a triumph of project financing

■ Derivatives: by Samer Iskandar

A blip in the growth trend

Trading volume has resumed its upward trend since the Barings collapse

The highly publicised derivatives-related losses of 1994 and 1995 undoubtedly had an influence on the way these instruments are used, but do not seem to have hindered the market's long-term growth trend. Although the number of futures contracts traded on organised exchanges fell in 1995 to 77.4m lots, from 80.7m in 1994, trading volume resumed its upward trend earlier this year. According to the Bank for International Settlements, 22.3m futures contracts were traded in the first three months of 1996, up 29.4 per cent from the previous quarter.

Over-the-counter markets were even more resilient. At the end of last year, the outstanding amount of OTC derivatives stood at \$43.200bn, up 17 per cent from the \$36.900bn at year-end 1994, according to initial estimates by Swaps Monitor, a US risk management newsletter.

Trading revenues of derivatives dealers are another indica-

enhancement purposes. The characteristics of recent issues of structured medium-term notes - bonds with leveraged coupons whose prices amplify market moves - have changed significantly from previous transactions. While some structured notes still offer highly leveraged returns, a growing number of issuers recently started guaranteeing the value of the principal amount.

Market participants are increasingly focusing on other characteristics of derivatives. Customisation, or tailoring a product to fit an investor's particular needs, is one of them. Not so long ago, "leverage used to be the main motivating factor for using derivatives," says a salesman of OTC options. "What attracts investors now is the flexibility and the possibility to personalise a trade."

Non-leveraged uses of derivatives have attracted some of the most conservative investors, such as managers of UK unit trusts. Although guaranteed products represent only a niche market, they offer attractive properties. By applying derivatives-based hedging techniques, the managers of these funds are able to guarantee the initial investment and periodically lock-in past performance. Mr Richard Bolchover, director at Close Fund Management, says that a large number of investors are willing to give up part of the upside potential in exchange for protection against losses.

Large funds also view derivatives as an alternative investment instrument in markets where liquidity is limited. In cases where the amounts involved are very large, the lack of liquidity can make some markets inaccessible in the absence of derivatives. And some professionals argue that investing in these markets through derivatives often stimulates activity in the underlying shares and generates liquidity in the longer term.

As users of derivatives reduce leverage - and therefore market risk - they are simultaneously seeking more efficient ways of measuring this risk. J.P. Morgan - among other institutions - is a strong proponent of Value at Risk (VAR), a statistical tool also recommended by the US Securities and Exchange Commission, as a global benchmark for risk measurement. VAR, which is based on past losses, measures the maximum loss a portfolio is likely to incur over a period of time, with a certain degree of confidence. While most corporate treasurers and investors are able to understand a VAR analysis with little technical background, undertaking the calculations is not a simple task and requires costly hardware, which is likely to deter most small companies and even some of the large ones," says Mr Baldoni at Emeur. However, he believes a majority of users will require only monthly - or even quarterly - VAR analyses, allowing them to "outsource the analytical tasks" to risk management professionals.

"Deleveraging" is another important trend. Leverage - the factor by which performance is multiplied when using derivatives rather than investing in the underlying asset - has declined substantially in the past 12 months. And some investors, notably corporates, reportedly ceased to use derivatives for yield

Lack of liquidity can make some markets inaccessible

icator of activity. In the first quarter of 1995 - the period that saw the Barings collapse - the derivatives trading revenues of US dealers fell to a low of \$1.15bn, from \$1.8bn and \$1.9bn in the first three months of years 1994 and 1993 respectively. Swaps Monitor estimates that these revenues have climbed back to \$1.85bn in the first quarter of this year.

Although swaps and foreign exchange forward contracts remain the largest components of the OTC market, with market shares of 45 and 25 per cent respectively, commodity and equity-linked products have grown steadily, to around \$200bn at the end of last year, from \$20bn in 1992.

The growing use of equity-linked products is only one of several new trends in the financial derivatives market, according to Mr Robert Baldoni, managing director of Emeur, a US risk management consultancy. A significant part of derivatives' growth is taking place "outside the traditional areas of currencies and interest rates," he says. While the outstanding amount of currency forwards declined in 1995 from 1991 levels, equity and commodity products grew by 50 per cent. Other potential growth areas include credit derivatives - which offer a hedge against a deterioration in a counterpart's financial health - insurance products and instruments linked to the emerging markets.

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There is a need to tap new sources of finance

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From the sponsors' perspective, the inclusion of a private placement has both economic and strategic benefits. The private placement provides a 10-year grace period before the notes amortise over the remaining five years. In addition, like all project sponsors Siemens and PowerGen were keen on developing new relationships with providers of long-term debt financing. The success of Java Power in combining traditional sources of financing from commercial banks and export credit agencies with a capital markets issue has opened new financing options for future projects, claims Mr Leissner. BEZW points to its experience

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8 INTERNATIONAL CAPITAL MARKETS

■ Emerging markets by Richard Lapper

That incredible obsession

Mexico's devaluation seems a thing of the past as capital begins to flow back

"It is almost incredible that people are so preoccupied with the emerging markets," comments one New York banker, contrasting the current - almost obsessive - investor interest in the markets with the fear which predominated only just over a year ago.

Mexico's shock devaluation in December 1994 triggered a wave of capital flight into the safe havens of the US and European bond and equity markets. But over the past 12 months, as those markets have powered ahead, the relative attractions of the emerging markets have grown and capital is now beginning to move back to them.

Figures for Investment Company Institute show that US mutual funds, which account for some 17 per cent of capital flows into emerging markets, pumped in more than \$4.5bn in January and some \$3bn in February into international markets. In the first three months of 1996, total investments by US mutual funds totalled \$9.3bn, compared with \$11.9bn for the whole of 1995.

Part of the surge early in the year was due to the so-called "January effect", caused when dealers sell loss-making securities for tax reasons in December and subsequently buy them back early in the following year, and the rate of investment slowed somewhat in March.

Nevertheless, specialist traders and hedge funds, as well as the proprietary desks of investment banks and institutional investors, appear to be pinning their hopes on continued growth.

Emerging market equities have risen sharply. Overall, the composite International Finance Corporation index rose by 10.6 per cent between the end of December and May 22. Hungary led the charge with an increase of 67.2 per cent (following a 26.8 per cent fall in 1995). Polish equity prices rose by 60.2 per cent (following falls of 42.6 per cent and 9.2 per cent in 1994 and 1995);

while both Turkish and Zimbabwe prices rose by more than 25 per cent.

In Latin America prices have risen by 12.8 per cent on average with Venezuela up 50.4 per cent, Mexico rising by 21.8 per cent and Brazil up 14.7 per cent.

In Asia prices have risen by an average of 15.8 per cent. Here India has led the way with a 28.1 per cent rise, followed by Taiwan with a 21.9 per cent increase and Malaysia 19 per cent.

Bond prices, too, have surged ahead. The West Merchant Bank secondary debt market index - which aggregates the performance of 18 emerging

Brady bond yields have continued to fall while the yields on 30-year Treasuries have risen

bond markets - increased by 9.5 per cent between the end of December and May 17. The stripped yield spread - which measures the yield on Brady bonds once the zero-coupon treasury collateral has been stripped from their price - has fallen by more than 2.5 per cent since the end of the year, falling to a recent low of 754 basis points on May 17 compared with 1024 basis points at the end of last year and a recent high over the last 12 months of 1280 basis points in November last year.

This performance has occurred despite weakness in US Treasury bonds, which Brady bond yields normally track closely. Since March Brady bond yields have continued to fall while the yields on 30-year Treasuries have risen. According to Mr Peter West, economic adviser at West Merchant Bank, the correlation between long bond yields and Brady bond price index, which is typically negative to the tune of 60 per cent, has fallen over the last three months to minus 2.54 per cent.

And the interest rate outlook has also been positive. Rates have begun to rise since March

The recovery has also been apparent in the primary equity and bond markets. Latin American, eastern European and Far Eastern companies are coming to the international equity market in droves, attracted by growing institutional appetite for their issues. Many emerging market equity issues have been heavily oversubscribed.

At the end of March, for example, Pilva, a Croatian pharmaceutical company, found that it could sell its \$90m of global depositary receipts more than 20 times.

Analysts at ING Barings are expecting flows to total \$50bn in 1996, more than three times the amount registered in 1995, and approaching the record level of \$22bn set in 1993. So far, Ms Angela Cozzani, an analyst with the bank's global strategy unit, says rises in interest rates in Japan and the US could disturb these projections but that even in a "worst case scenario" some \$30bn is likely to be directed towards emerging markets.

Several factors are driving the trend in the equity markets. Emerging market stocks have looked relatively cheap compared with what they were 18 months ago. At the beginning of the year India was on a price-earnings ratio of 10 times and Asian markets were trading in the mid-teens compared with their normal 20 times plus, for example. Expectations of rising economic growth and higher corporate earnings mean that this outlook should be sustained for at least the rest of the year. Ms Nancy Curtin, who manages the Barings Chrysalis Fund expects earnings growth to "accelerate sharply" in the second half of the year and is particularly bullish about prospects for some Asian and East European markets.

Emerging markets have also been helped by global liquidity. Until earlier this year, short-term interest rates were on a downward trend in the US, Europe and Japan. As a result, with bond yields in the world's safe havens falling, investors have become hungry for higher yielding assets, leading many of them to turn to the emerging markets.

"Mexico gave people pause for thought. It disrupted the process, bringing about a necessary realisation of the risks and creating more knowledgeable participants. Broader investor participation is clearly on its way," says Mr Costas.

And the interest rate outlook has also been positive. Rates have begun to rise since March

but with inflationary pressures dampened, most observers expect that rates are unlikely to increase as sharply as they did early in 1994, or during similar stages of previous credit cycles.

"Interest rate speculation per se is a declining aspect of what clients and we will focus on," says Mr John Costas, senior managing director, fixed income, North America at UBS in New York. "The fact is we won't have a 1,000 basis point rally over the next decade. It is just not possible."

Indeed, there are already some indications that interest rates - and bond markets - are becoming less volatile. As a result, traders and investors seeking especially high returns are looking to back up pricing credits as a way to enhance yields. Many emerging markets, undergoing their own structural changes as a result of privatisation, successful counter-inflationary policies and strong export growth, offer particularly good bets.

Mr Ali Nagvi, head of the emerging market bond group at Citibank Global Asset Management, says US fixed-income fund managers are already becoming receptive to the argument that Brady bonds, the most widely traded emerging market debt paper, represent a kind of emerging market junk, which has much the same kind of relationship to emerging market equities as US corporate junk bonds do to US equities.

Borrowing the junk bond terminology of the 1980s, Mr Nagvi says: "Brady bonds are emerging market equities in drag. We make the comparison with corporate high yields. It is an argument that makes them sit up," says Mr Nagvi.

Finally, investors also appear to be becoming more knowledgeable about the emerging markets. Following the sell-off of early 1995 they have become better able to differentiate between markets, and less prepared to tar all markets with the same brush.

"Mexico gave people pause for thought. It disrupted the process, bringing about a necessary realisation of the risks and creating more knowledgeable participants. Broader investor participation is clearly on its way," says Mr Costas.

■ Russia by Richard Lapper

Opinion polls cheer investors

An improvement in macro-economic conditions has also been positive for the market

In general good year for emerging east European markets, investors in Russia have enjoyed bumper returns. Foreign investment flows especially into the equity markets have picked up on the back of expectations that President Boris Yeltsin will be returned to office in this month's presidential elections.

Between March 19 and the middle of May Russian equities have increased in value by an average of nearly 50 per cent, with the Moscow Times dollar index rising from a low of 84 to a current level of about 80.

Several individual stocks have done even better. Moseenergo, the Moscow-based energy company, and the country's most liquid stock, has risen from about 18 cents to 47 cents over this two-month period, an increase of 160 per cent.

Investors have taken heart from opinion polls showing that President Yeltsin is gradually gaining ground against his communist rival, Mr Gennady Zyuganov. In addition, however, they have been encouraged by improvements to the commercial and legal infrastructure.

Two important pieces of legislation - a new companies law and a new securities law - have been approved. The securities law prohibits companies that issue securities from quoting or trading their own shares and clarifies and strengthens the role of the Federal Securities Commission (FSC), the securities industry regulator. New moves designed to integrate new capital markets legislation into Russia's civil and criminal codes are planned, further strengthening shareholder rights.

Custody arrangements have become less hazardous and investors say that registration problems are no longer as onerous as they were last year. Some 48 independent registries have been formed in the last 12 months. Mr Nicholas

Jordan, a director of the emerging markets division at Deutsche Morgan Grenfell, says that a year ago Russian brokers were "infamous for going back on done deals" and investors were rightly concerned that even after a purchase of shares they might not be able to get their name on the shareholder registry".

By contrast, "now there is an electronic trading system accounting for about 30-40 per cent of daily turnover, and the shareholder meetings this spring have shown that shareholder rights are finally a force to be reckoned with by management."

Foreign investors have been

recently amount to some 18 per cent.

Mr Vladimir Goussakov, head of the executive board at Sberbank Imperial, told a conference in mid-March that some R11,400bn - just under 10 per cent of all outstanding GKO issues - had been invested by non-residents in this way.

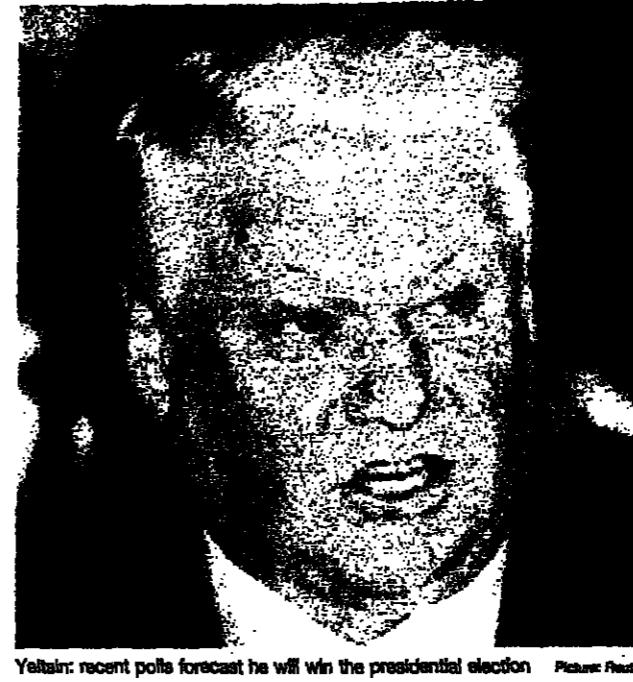
Nevertheless, pitfalls still await the unwary. Political risk will continue to overshadow the market, with opposition parties still dominant in the legislature. Many observers are sceptical about the impact of current moves to give real legal weight to the new securities laws. And Russian accounting standards will continue to perplex foreign investors. Under local accounting conventions, for example, earnings figures are of relatively little use for valuing Russian companies. One of the main indicators of performance in Russian accounting, for example, is a concept called "balance profit", which is often translated into English as pre-tax profit.

But as Mr Jordan explains, the concept defines the base from which companies calculate corporate income tax, and is cited before the deduction of a range of costs, ranging from social expenditure - which might amount to between 5 and 20 per cent of tax-deductible costs - to maintenance and equipment replacement.

There are also pitfalls in reliance on other valuation techniques, such as those that measure the value of the market value of resources owned by Russian companies.

For example, the average Russian oil exploration and development company has a market capitalisation that works out at about 5 cents a barrel of its oil reserves, about 100 times lower than the equivalent figure for western oil companies.

Although that might seem like a good argument for buying, Mr Jordan argues that it ignores the cost of money, a significant omission in a market where investors in Russian T-bills can obtain hedged returns of more than 40 per cent a year. "An opportunity cost of 40 per cent per year equals 440 per cent net return in five years, and 2,800 per cent return in 10 years. You cannot just ignore the time factor of money in a market like this."



Yeltsin: recent polls forecast he will win the presidential election. Picture: Reuters



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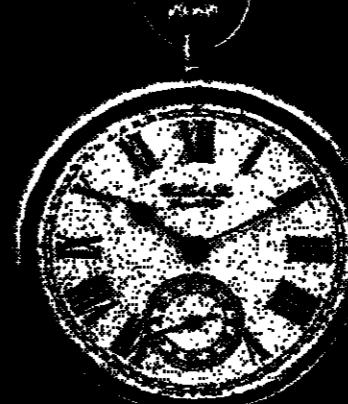
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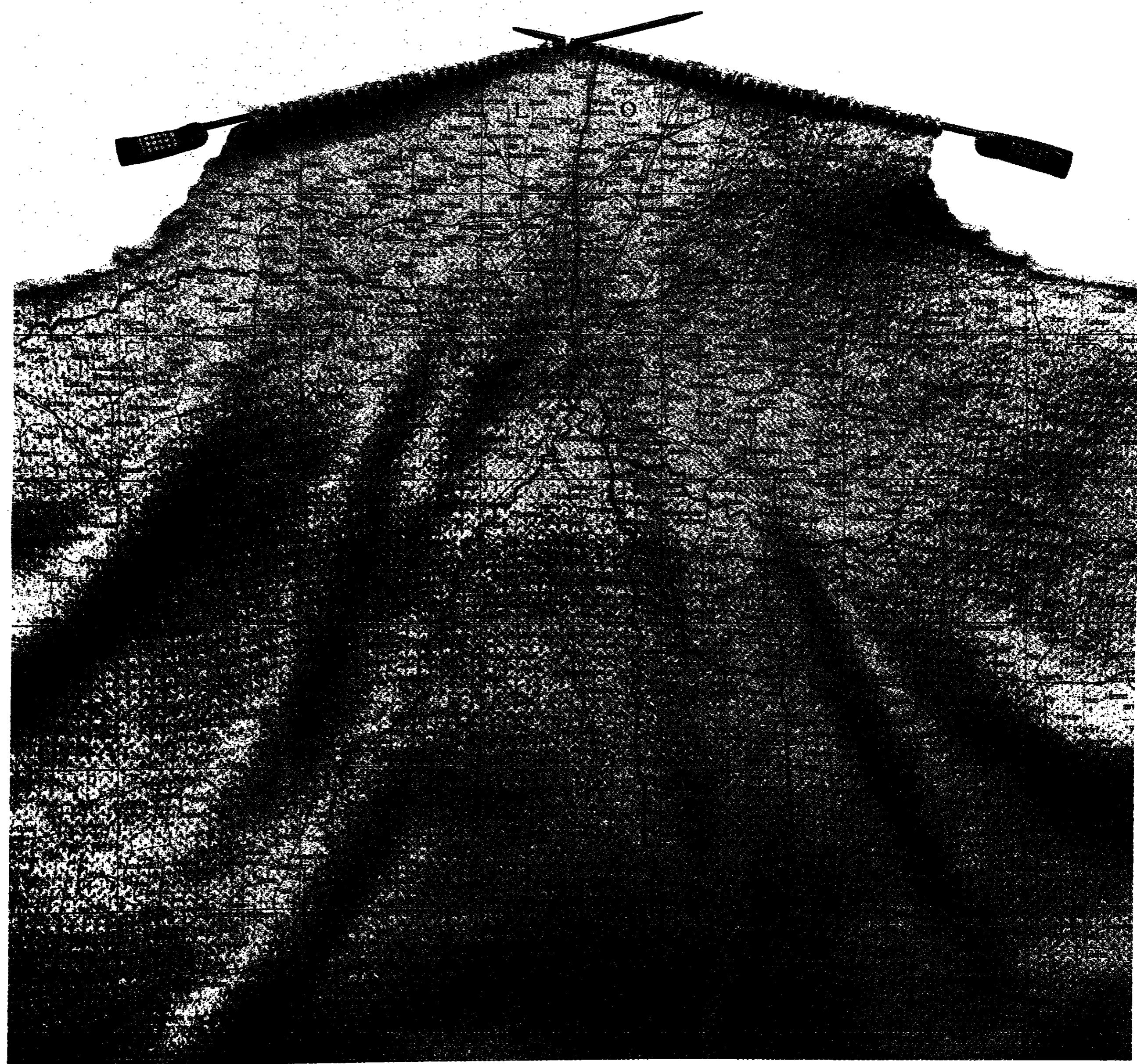
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8 TELECOMMUNICATIONS IN BUSINESS

■ Specialised operators: by Christopher Price

While the newer operators may not like to stress the importance of price in attracting new customers, the subject remains a priority with the target audience.

British Telecommunications' recent decision to cut its prices for business customers by between a fifth and a quarter is likely to bring a welcome relief to the company's hard-pressed sales squad.

With more than 150 licensed operators in the UK, competition, particularly in the business market, has never been more fierce. Price remains the key for most companies. But with the increasingly technological demands of industry's telecoms requirements, new services and the ability to deliver them - are a growing requirement.

■ Outsourcing: by Christopher Price

Powerful financial benefits

Outsourcing was most popular among the manufacturing and transport groups, while the retail sector was least enthusiastic.

Why are more companies choosing to hand over part or all of their telecoms requirements to their suppliers, or to third parties?

There are several reasons, ranging from the technical to the logistical. However, the most powerful argument for most companies is financial: outsourcing can save a company many thousands of pounds.

A recent survey by Ovum, the telecoms research group, showed that 60 out of 100 mul-

It was competitive pricing which helped to persuade Mr Viv Astling, chief executive of Dudley Borough Council, to opt to have the council's telecoms service outsourced to TeleWest, the UK's biggest cable company.

"We have lots of different locations and incur lots of costs just in external calls between departments. The TeleWest contract will save us £160,000 a year." The cable company is putting in a Centrex system, which will externally manage and route the council's telecoms traffic.

Mr Geoffrey Cheetam, vice-president of business services at TeleWest, says: "The way we win customers is through dialogue. We are smaller than most telecoms groups so we need to build trust. The Dudley contract was 18 months in negotiation." He adds that the group's tariffs can be very flexible. "We can compete very effectively and very specifically on price."

Mr Colin Williams, president and chief operating officer of MPS International, the holding



Grabiner: 'Our aim is to give more telecoms service for less'

company of MFS Communications, is also keen to stress his company's responsiveness.

"Our great strength is our flexibility," says Mr Williams. "Most companies' day-to-day telecoms problems are trivial for the operators but tremendously important for the customers. We aim to redress that problem. We are a 300-strong dedicated team, all with one

aim in mind: to solve our customers' problems."

MFS currently has 400 customers in the UK. The company is planning to extend its network to other cities, with Edinburgh and Birmingham likely candidates. It complements its network with agreements with other operators, such as BT, a trend Mr Williams sees as likely to continue.

Mr Michael Grabiner, chief executive of Energis, the telecoms operator owned by the National Grid, says: "Our aim is to give more telecoms service for less."

In the past three years, Energis has attracted 12,000 business customers, including the BBC, Reuters, Unisys, Great Universal Stores and Virgin Atlantic. Its key features include a sophisticated management billing facility, a frame relay service for data transmission and the fact that the network is based on Synchronous Digital Hierarchy, which delivers greater capacity and speed than usual fibre optic systems.



Energis's 4,100km network is strung along the National Grid's power line network. Its key features include a sophisticated management billing facility, a frame relay service for data transmission and SDH technology

Its 4,100km network has been strung along the National Grid's power line network.

Mr Grabiner says the company's price positioning is "an obvious advantage" in the current market climate. "As a new entrant, people are looking to us to be competitive." He said Energis's tariffs were some 15 per cent below those of BT and Mercury.

ruled out a merger, although conceded that the group's relationships with other telecoms groups would "inevitably grow closer and closer." The company already has a variety of agreements, from switching to connectivity, with the likes of MFS, Colt and Scottish Power.

While the newer operators may not necessarily like to stress the importance of price in attracting new customers, the subject remains a priority with the target audience.

"Energis were cheaper, it's as simple as that," says Paul Tomlins, manager of IT systems at Virgin Atlantic, who has recently signed a contract with the telecoms group. "We think they can provide as good a service at a lower price and in our business that counts for a lot."

The airline's telecoms needs are quite comprehensive and Mr Tomlins had some reservations about Energis's ability to deliver.

"My main concern was reliability. Have they got the back-up? But Energis were totally flexible and will let me switch out of the network and the contract if the service lets me down."

Mr Tomlins fears were undoubtedly fuelled by the large established operators which stressed the importance

of their service provision in bidding for the contract.

He estimates Virgin Atlantic will save between 25 and 50 per cent on its telecoms account by putting its business with Energis.

BT, for its part, is fighting back, assembling a specialist "win-back" team as part of its strategy to stave off the growing competition.

Mr Mike Kiley, head of BT's telephony marketing team, says the issue of price is often a mistaken one. "Companies may take their business away from BT on the basis of a perceived saving on price, but the actual savings they make are often far smaller and the service can also be a lot poorer."

He adds that a lot of the company's "win-backs" are achieved with BT's more effective billing systems.

Mr John Thompson would agree. The finance director of Matcon, the materials handling equipment manufacturer, has returned to BT after being with a lower-cost reseller, and one of the reasons is he prefers the quarterly, 30 days to pay, account he receives, rather than the monthly direct debit.

The twin attraction of new discounts being offered by BT and services such as videoconferencing proved too attractive.

Outsourcing: by Christopher Price

Powerful financial benefits

International companies operating in Europe used some form of outsourcing.

Reducing costs was the chief reason for outsourcing cited in the survey. However, respondents also expressed their need to utilise their time more effectively and concentrate on their core business - a reflection of the growing complexity and importance of telecoms in the business environment.

The lack of internal expertise to handle the growing telecoms business, and the cost of bringing in trained staff to handle it, were also integral to decisions to outsource. Issues of improved quality of service, functionality or availability ranked much lower in importance as reasons for adoption.

Those companies which had considered outsourcing but had decided against it had done so because of concerns over losing control of their network operations and security.

and worries over any reduction in quality. However, these were the distinct minority. Less than 15 per cent of those surveyed said they would not be outsourcing any traffic in two years' time, compare with almost 50 per cent now.

Outsourcing was most popular among manufacturing and transport groups, while the retail sector was least enthusiastic. Ovum says this could be due to "corporate site distribution, where the dispersed nature of retail organisations contrasts with the relatively centralised nature of manufacturing companies, for whom outsourcing supply is relatively more simple."

Mr David Sexton, managing director of corporate business services at Mercury Communications, says the growth in outsourcing in different industries reflected changes in how telecoms technology had affected their particular markets. "The

changes witnessed in financial services, for example, have meant a sea change in their telecoms requirements," he says.

Recognising the increased role of telecoms is one thing persuading companies to outsource management of their network is another. "Our biggest competitor is those companies who think they can manage their systems more successfully and more cost-effectively than we can," says Mr Tim Murray, head of marketing at Sincordia, the outsourcing arm of British Telecommunications.

Most executives agree on the importance of building relationships with customers. "Most outsourcing comes from long-term relationships with customers," says Mr Sexton. "Once the trust is there, customers are more accepting of ideas on the application of outsourcing."

However, this acceptance is not given openly, and most companies are keen to monitor the performance of operators of their networks, both for cost-effectiveness and for security reasons.

Benchmarking, as it is called, is developing in sophistication as outsourcing grows. Nearly three-quarters of the Ovum survey involved in outsourcing had basic management agreements in place covering some aspect of performance measurement. Pricing guarantees were also found to be widely used, with the same proportion striking agreements with suppliers on the fixing of prices or a guaranteed reduction over the contract period.

Mr Barry Eliades, managing consultant at Ovum, recommends several "golden rules of benchmarking": agree details at the contractual stage; make sure responsibility for the contract is shared between the signatories; use an independent authority to carry out the benchmark; do not focus on price alone; define performance criteria that can be evaluated and compared; allow for "unique" features in the comparison process; use a regular performance monitoring tool - not as a one-off spot check; and expect a qualitative conclusion rather than a quantitative result.

Benchmarking is being

AT&T aims to secure revenues of \$1bn a year in Britain by the turn of the century

underpinned by the intense competition from telecoms groups for managing network services. While price competition can be fierce, the quality of service, and with it any monitoring aspects, are also highly prized.

The competition for outsource

cating is reflected in the growing number of alliances being struck in order to surmount regulatory hurdles and to pool resources.

MCI, the second-largest US long-distance carrier, and BT, recently announced their intention to extend the services of their joint venture, Concert, to New Zealand. Concert, a "global supercarrier" offering seamless voice and data transmission services to large international customers, already operates in 50 countries.

BT acquired a 25 per cent stake in Clear Communications, New Zealand's second-largest telecoms operator. MCI already holds a similar stake in Clear. The move represented a strengthening of BT's presence in the Asia-Pacific region, where it is weak compared with Europe or the US.

The move came hot on the heels of AT&T, the largest US telecoms operator, announcing it was launching an assault on the UK telecoms market, with Sprint of the US, Deutsche Telekom and France Telecom.

AT&T intends to offer a range of "intelligent" network services to large and medium-sized businesses which provide international operators with most of their revenues.

Britain is the first country outside the US where AT&T has acquired a licence, installed facilities and started to offer services. It already has a range of data transmission services for which it has more than 200 customers.

AT&T has an alliance with Unisource, a venture between four European operators, called UniWorld. AT&T says it does not plan to compete on price in the UK but by forming partnerships with customers. Its main competition in the fight for multinational customers is from Concert and Phoenix, a joint venture between Sprint of the US, Deutsche Telekom and France Telecom.

it all 1,400 base stations, install the new software, and re-tune the radio signals of almost 5,000 cells, one by one. (It was imperative that the two channels were tuned to exactly the same frequency, or the stations would favor one channel only. And nothing would have been gained.)

The guinea pig was to be Pescara, a small town on the Adriatic coast. And, one is tempted to say, of course things didn't work. But a minor infarct glitch was worked out in a day and a half. After that, all systems were "go" for a national roll-out. Florence came the following week, then Cagliari, then Napoli, then the rest of the country.

Every night, two to three hours after midnight, teams of experts visited base stations and cells in the network, shut them down, changed them over to two-channel operation, and turned them on again. On mountain sides, on rooftops, on rocky beaches, on steel towers. Planned and orchestrated like a military operation. Without a single subscriber complaining. Or even noticing.

So, the same summer night that Italy played Bulgaria in the World Soccer Championship in the United States, the multi-company, multinational CN-A9 task force gathered in Florence to celebrate. They could boast a predictable Italian soccer victory. But, more significantly, they could boast a great accomplishment of their own — though maybe not fully as predictable.

So, is that it? Unfortunately not — or fortunately, depending on which view you take. The Italian cellular boom continues, and the access congestion is slowly but surely coming back. And this time you can't repeat the old channel trick.

The new solution will be to shrink the size of the cells instead. Which is also easier said than done, because the need is biggest in the cities, where there is little room for new base stations. (In sophisticated Portofino, TELECOM Italia Mobile even had to buy a small apartment and put the station and its antenna *inside* the living room.)

This next Italian build-out phase has been called "The Impossible Step." We, at Ericsson, can hardly wait to sink our teeth into it.

NIGHT RAID ON MONTE CALVO.

The Bell Jet Ranger arrived at the rendezvous exactly 15 minutes past five in the morning. Just as Operations had planned it.

It landed on the plateau, 1,600 metres above sea level, where it had dropped the professionals and their equipment the evening before. Two men hustled onboard, and the helicopter lifted, banking into the rising sun. They were quiet. They knew their night job had been a success. Secretly they had shut down a key part of Italian telecommunications for thirty minutes without anybody noticing. And when they turned things on again, nothing was like before.

The raid on the cellular transmission station on Monte Calvo was only one in a series of 1,400 nightly missions that took place in Italy during June, July and August of 1994. And they were all the result of a giant miscalculation. A killer success, some people called it.

Simply put, when cellular telephony was introduced in Italy in the late eighties, nobody had counted on the market to explode the way it did. (To be honest, we at Ericsson were also caught by surprise — despite having built mobile phone networks in 74 countries around the globe.) The Italians love their *telefoni*.

The first signs of congestion could be seen in Toscana in the spring of 1993. Then came the summer. Vacationers brought their

cellular phones to popular seaside resorts only to find that they could not access the network without great difficulty. Or not at all.

But real serious trouble started in the fall, when the Italian network operator, TELECOM Italia Mobile, launched low *firmsigla* tariffs aimed at the residential market. The goal was 50,000 new subscribers per month — before year's end, the actual number was double that. And increasing. In December, the operator realized the network was approaching full capacity. With cellular grid lock looming on the horizon.

The big question was: Is there any way of expanding the existing network instead of suffering the incredible pains and costs of building a new one? And do it now, right now?

A sane group of persons would probably have said, "No, not under these circumstances". But to us at Ericsson, the challenge was just too exciting to pass up. (Dedicated? Yes. Sane? Not always.) We decided to throw all available resources at the problem. And to get the customer directly involved in the work from day one. And to try new approaches without hesitation. And to do all this at the breakneck speed the crisis-like situation called for. We gave the project code name CN-A9.

Of course, you have already guessed that we solved the problem (or this ad would not be here, right?). But the story has a few interesting twists to it, as you shall see.

From a full "practical" capacity of 800,000 subscribers and a full "theoretical" capacity of 1,500,000 subscribers, we extended the existing network so it could handle more than 3,000,000 subscribers. Without adding a single base station or cell.

What we did add, however, was a new, second access channel. (We performed a few other tricks, too, including some true on-the-spot inventions, but this was the heart of the solution.) One of the 24 voice channels in each cell was put to work as a subscriber access channel instead.

Now, this may sound like a simple enough idea, but it was something that had never been done before. Anywhere in the world.

In a brief period of five months, a team of Swedes, Canadians, Englishmen and Italians turned the idea of double access channels into reality. These were people from Ericsson, from the Italian mobile operator and from the national telecommunications company, TELECOM Italia. They all worked to solve a single problem. At times, it seemed they all worked for a single company.

In Stockholm, they analyzed the congested network. In Calgary, they developed new two-channel software. In Karlshamn and Guildford, they laboratory tested each solution. And in Rome, they designed a "battle plan" for how to implement it all on site.

Because, to make it work, in the end they would have to revis-

■ Videoconferencing by Michael Dempsey

Industry expects sales to soar Tremendous growth

The TSB Bank has installed nine videoconferencing studios to encourage all employees to cut down on travelling.

In 1995, worldwide sales of videoconferencing systems totalled \$500m. The industry expects this figure to climb to about \$1.5bn during 1996 and claims that \$7bn worth of systems will be sold annually by 1998.

The capability to link groups of executives over long distances has been around for more than a decade. But a big user base has emerged in the past few years. What has brought industry round to the idea that seeing colleagues on a monitor is just as effective as visiting their office?

John Brown Engineers & Constructors, a £1bn company that is part of the Trafalgar House group, employs 11,000 staff building oil, gas and petrochemical plants in 25 countries. Mr David Moorhouse, chief executive, uses a videoconferencing system from US market leader PictureTel to conduct 75 per cent of his international board meetings.

Mr Moorhouse is a videoconferencing enthusiast with reservations on the current state of signal quality when several parties are participating. The use of large videoconferencing screens does make a difference to the bottom line, Mr Moorhouse says. "If you're a widely-distributed business you do making savings on travel. And videoconferencing vastly improves the quality of discussion as opposed to the telephone."

The PictureTel 4000 features a large camera, giving a definition lacking in cheaper and smaller videoconferencing facilities. A keypad similar to a TV remote control allows each user to see his own image at the bottom of the screen. This particular system costs about £40,000, and John Brown E&C rents a special British Telecommunications line at £400 a month to maintain its videoconferencing facility.

This Integrated Services Digital Network, or ISDN, line links voice and visual images

and allows the subscriber to make calls using data broken down into digital signals to more than 40 countries.

BT offers a service, called Continuous Presence, that allows several parties to share the space on one videoconferencing screen. Mr Adrian Butcher, head of sales and marketing at BT Visual Business, describes this as a Bettelburg Castle effect, with executives from four separate locations each occupying one quarter of the screen. With Continuous Presence charged

shortcomings, ISDN has allowed this technology to make the breakthrough into mainstream applications.

"Five years ago, you had very specialised systems that needed a dedicated leased line using a fixed circuit between two end points. Over the past five years, suppliers have done a lot to make videoconferencing easier to use and they've brought the price down."

There are different levels of ISDN signal, but Mr Ossowski reckons that the arrival of a basic-rate ISDN made the

the TSB's example in making an impression.

"Once enough people start to use it, word gets around and employees want it at more sites. Saving air fares and cutting down on travel time are the headline benefits. But the real benefit lies in the frequency of high-quality interaction. It almost acts as a lubricant to the price down."

An industry standard, known as H320, has emerged. This allows conferencing suites from different suppliers to link up. The readiness of rival manufacturers to embrace a common standard indicates a recognition that use of one system acts as a spur to the purchase of others.

Computer chip giant Intel Corporation sponsored a survey of 101 UK companies to coincide with its recent launch of a desk-top video and data exchange called ProShare.

According to Intel, half the companies surveyed had active policies to reduce travel costs while 63 per cent felt more collaborative projects were being undertaken.

This is the kind of response that has telecoms providers and computer makers sitting down to devise new

whole idea of videoconferencing a lot more affordable.

Britain's TSB Bank has installed nine videoconferencing studios to encourage all employees to cut down on travelling. Mercury installed the system, employing PictureTel equipment.

Mr Brian Carson, information technology communications manager for TSB, thinks the use of a third party is an efficient way to manage a system distributed across the country. "Our network is managed by Mercury, so we just pay for use of the service."

Staff contact Mercury to book time on the system.

Despite limitations such as a slight time-lag meaning participants can only speak one at a time, employees seem to have taken to the new technology.

"It gets quite busy, any staff member can now ... and you have to book your slot well in advance," a TSB spokeswoman noted.

Mr Butcher thinks that videoconferencing has picked up an unstoppable momentum. It is still predominantly used for senior staff. But



Butcher: 'the real benefit lies in the frequency of high-quality interaction'

With the minute, Mr Butcher reckons a typical 40-minute meeting might cost £600. If this sounds extravagant for a four-way chat, it should be measured against air fares for business class airfares.

Mr Moorhouse is sceptical about the value of such an extra service. It relies on continuous ISDN transmission from four locations, and he says that existing technology means that this is not realistic for long conversations. Some signal interruption is almost inevitable.

John Brown E&C has not dispensed with conventional meetings. Mr Moorhouse insists that every fourth monthly board meeting is conducted face-to-face. "Videoconferencing still has a dimension missing from normal meetings," he says. "And it is important not to let the system obscure the purpose of the conference."

Mercury Communications estimates the UK videoconferencing market at £50m a year. Mr Julian Ossowski, product manager for video services at Mercury, says that despite its

success, the market is growing rapidly.

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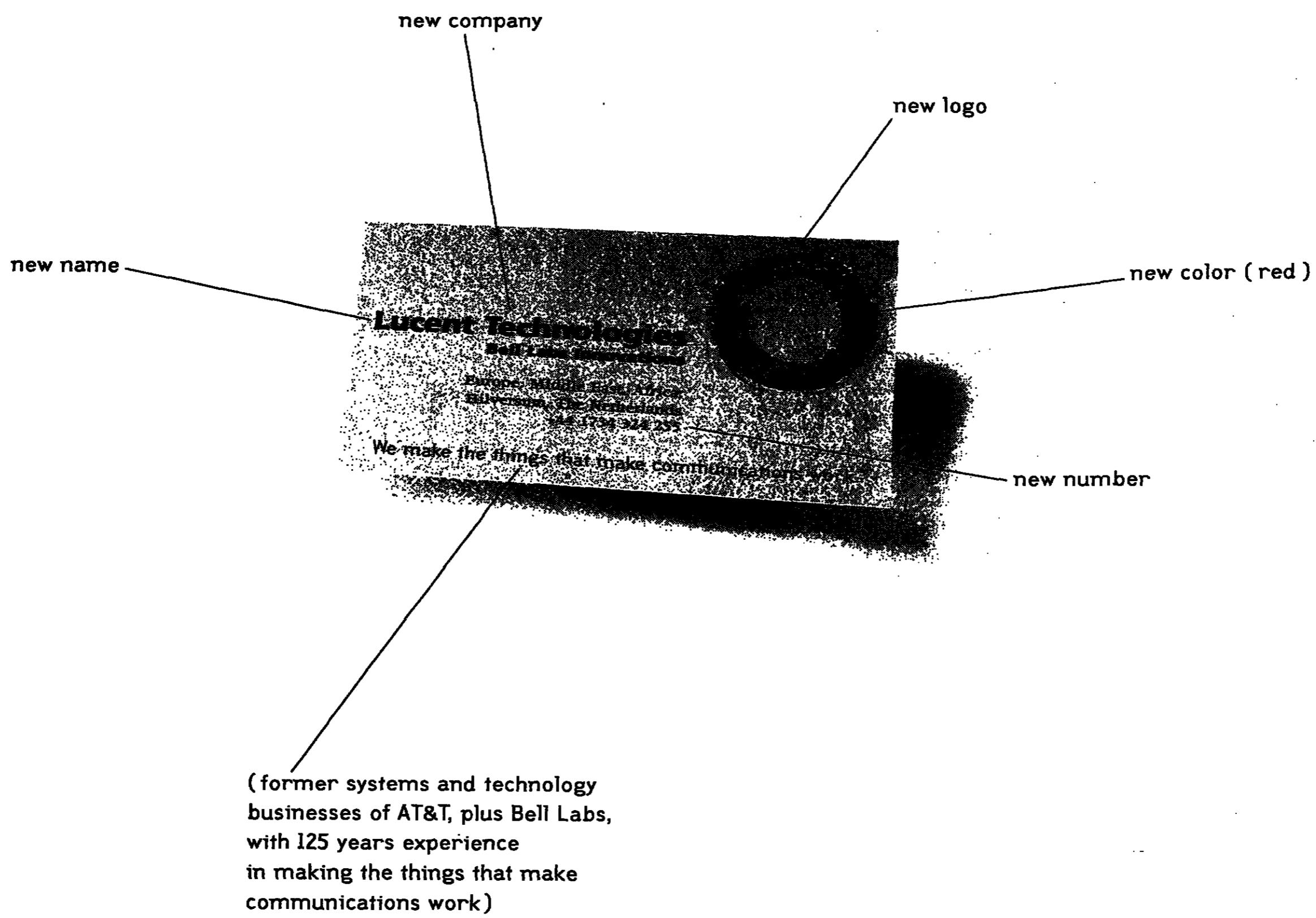
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■ Mobile telephony: by Kris Szaniawski

Wide range of advanced features

All sorts of extras such as voice mail are already being used to add value to mobile services

So-called "plain vanilla" cellular services are no longer enough - increasingly, telephone operators are having to offer a variety of advanced services to fend off competition and also to retain profitability.

Mobile data, mobile-fixed convergence, and various enhanced services such as voice mail and information provision are increasingly being offered in addition to straightforward mobile voice calls.

This is partly the result of the increasing maturity of the UK cellular market. According to the Financial Times newsletter Mobile Communications, by the beginning of May there were almost 6m cellular subscribers - or 10 per cent of the population.

The rapid expansion of the digital networks - whether Vodafone's and Cellnet's GSM networks or Orange and Mercury One-2-One's DCS-1800 PCN networks - is being driven partly by the greater availability of a wide range of advanced features. About one third of total subscribers are now connected to a digital network; still below the western European average of 50 per cent but growing fast. The suggested analogue networks have started to contract as heavy users and business users upgrade to digital.

The digital networks are better capable of supporting data transmission than the old analogue networks because they can support higher speeds and the data is less likely to be corrupted.

All sorts of enhanced services such as voice mail are already being used to add value to mobile services, and new ones such as Internet access are being introduced all the time.

According to UK consultants

Ovum, currently available value-added services can be divided into five main categories: call handling services such as call barring, conference calls and call divert; messaging services such as voice mail, SMS, and gateways to paging services; data services such as digital circuit-switched and packet-switched data; corporate services such as integrated fixed and mobile numbering and mobile virtual private networks; and billing and accounting services such as itemised billing and links to smart cards. The list is already extensive and with technological advances it is growing fast.

Voice mail is now one of the best-established products, with some European markets boasting penetration as high as 80 per cent among cellular subscribers.

Short Message Service (SMS) - which allows messages of up to 160 characters to be transmitted over a standard digital phone - and voice mail are being used to support a wide range of information services

which already includes stock market and exchange rate reports, general news updates, weather reports and sporting information.

For example, during the Euro 96 football tournament, selected Vodafone subscribers will be able to receive full-time and half-time scores from football matches.

At the beginning of May, PCN operator Orange launched a service which provides direct access from its mobile network to the network of internet access provider Demon. The link reduces costs, improves quality and takes only eight to 10 seconds to establish a connection. Other digital operators have already established, or are establishing, similar links.

Another source of increasing revenue for mobile operators is mobile data. As well as the more basic SMS already described, the digital networks can also support full two-way fax and data transmission at up to 9.6Kbit/s. All the user needs is an appropriate data card to connect a GSM or PCN handset to a laptop computer or fax.

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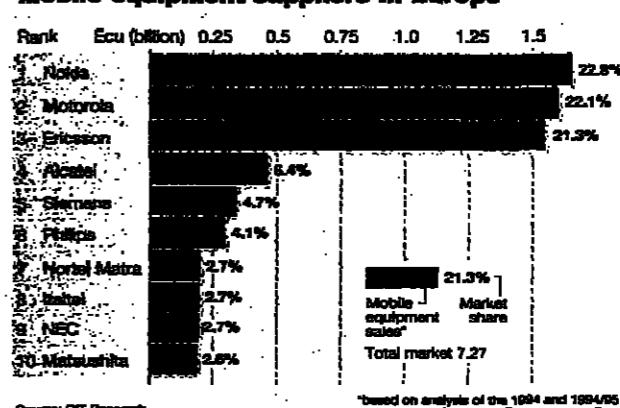
An innovative use of smart cards is the basis of a relationship between Cellnet and Barclaycard. Last November, Cellnet started trials of a scheme which allows Barclaycard customers to save up to 20 per cent on Cellnet calls. The scheme has now been officially launched. It is more than just a marketing exercise, because the cellular customers can already be billed to their Barclaycard account and in the near future they will be able to access financial information, make transfers between accounts, and make use of other services, all over their mobile phone.

Operators are also increasingly launching products which blur the previously sharp distinction between mobile and fixed telephony.

Cellnet has a call management system called Personal Assistant (PA), which helps integrate a company's fixed and mobile networks. Users of Cellnet PA are allocated a single contact number for all types of communication worldwide. The system is programmed with a schedule of the user's locations and times when they can or cannot take calls and Cellnet PA's "find-me" facility then chooses the appropriate response when a call or fax is made. Anyone calling on the single contact number does not know if they are being directed to a fixed or mobile phone.

An even more advanced system is Cellnet's Mobile Extension service which integrates a company's mobile phones effectively become internal extension numbers. This cuts mobile costs to and from the

Mobile equipment suppliers in Europe



*based on analysis of the 1994 and 1995 annual accounts of the main European suppliers

office and allows faster dialling and connections. It also allows different ways of working to be introduced. For example, incoming calls which would normally have to be handled by a switchboard can be automatically directed to one of a group of mobile phones, allowing more staff to work outside an office or in a small office. And this introduces the possibility of dispensing with a receptionist.

The next stage in mobile and fixed convergence will be the launch of hybrid services which link digital cellular networks with cordless systems based on cordless business system technology standards such as CT2 (Cordless Telephony 2) and Dect (Digital European Cordless Telecommunications).

Dual-mode handsets which are due on the market soon will allow subscribers to use cheaper cordless technology (which has been adapted for the office) and digital GSM or PCN technology when out of the building. Increasingly, customers will be able to access a vast range of services over a single handset wherever they are.

The author writes for Financial Times newsletter Telecom Markets

its private network.

There are cost implications, however. Making mobile phones appear to be no more than an extension of the fixed network makes it difficult to justify charging more.

This is already happening where companies are offered the choice of linking their PBX or switchboard directly to a mobile telephone network. By leasing a line which connects the company PBX to a switching centre, mobile phones effectively become internal extension numbers. This cuts mobile costs to and from the

retails at about £700 while the Nokia 9000 sells for about £1,500.

Dedicated two-way data-only networks, meanwhile, are far more suited to the needs of large service companies or customers with a need for niche applications such as service engineers.

Data-only network services such as RAM Mobile Data, Paknet or Cognit focus mainly on vertical market sectors and business applications.

The two big dedicated data technologies in Europe at present are DataTAC backed by Motorola and Motivox backed by Ericsson. They have the ability to send large amounts of data at great speed, making them particularly attractive for niche applications.

Niche users include field engineers, traffic wardens and emergency services

set into position on the communicator.

Both these new communicators attempt

in their different ways to tackle the problems which dogged the first generation of handheld computers, which was that they sacrificed computing power while still remaining fairly bulky and expensive.

The way forward seems to be either to reduce the size further by making the computer more akin to a personal organiser, or to go for a more flexible solution

as with the HP OmniGo. The HP OmniGo

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Niche users include field engineers, traffic wardens, emergency services, parcel delivery companies and traffic monitoring services - an example of which is the Trafficmaster in-car information system.

The UK government is also in the process of choosing two national operators to run new public access mobile radio (PAMR) services using the digital Trans-European Trunked Radio (Tetra) pan-European standard which has extensive data capabilities.

Paging operators are also seeking to retain a share of the data market through the launch of services based on new digital technology.

■ Mobile data: by Kris Szaniawski

Rapid expansion predicted

With time, various forms of data transmission, SMS and fax will all become interchangeable, removing current barriers to communication

Following the rapid growth in mobile voice services, the next big market is expected to be in data services, as business people are totally freed from the constraints of working from a fixed location.

According to independent analysts BIS Strategic Decisions, the number of mobile data users in the UK will increase six-fold over the next three years.

Digital cellular operators such as Cellnet, Vodafone, Orange and Mercury One-2-One stand to gain as much from this rapidly expanding market - if not more - than dedicated data-only networks.

The cost and technological benefits of data-only networks will ensure that this sector will continue to expand but cellular operators are likely to be the biggest beneficiaries of the creation of a mass market in data. The benefit of being able

to seamlessly combine mobile voice telephony with data transmission will be a big draw for non-specialised users.

The ability to roam outside the UK over other GSM (General Systems for Mobile Communications) or PCN (Personal Communications Network - essentially GSM operating at a higher frequency) networks is an added attraction and a number of data roaming agreements have already been signed.

The digital cellular networks - whether using the GSM standard employed by Vodafone and Cellnet or the DCS-1800 PCN standard employed by Orange and Mercury One-2-One - are capable of supporting a variety of data services and many applications have already been introduced.

Electronic mail is the first important horizontal data application, triggering interest from a wide range of users.

The current generation of digital phones already supports fax, short message services (SMS) and data transmission.

SMS is the non-interactive communication of short messages on a cellular network able to handle up to 160 characters

on most handsets and up to 250 if compression techniques are employed.

GSM and PCN can also support full two-way fax and data transmission at up to 9.6Kbit/s and the leading digital networks have recently introduced these.

With the appropriate data card, a subscriber can plug a laptop computer or fax into a GSM or PCN handset and be in instant contact with the office. British Telecommunications field engineers, for example, are able to use the Cellnet network to access manuals stored on a computer back in the office.

However, there are still limitations at 9.6Kbit/s - for example, it is possible to access the Internet but downloading a file can be a slow process.

The leading digital network operators have also recently started offering special, cheaper data-only tariffs on their networks to compete more directly with the dedicated data carriers.

The next step is to integrate the various capabilities. For example, Vodafone is currently testing a Telenote fax service which would allow SMS to be sent directly to a standard fax, and hopes to launch it commercially before the end of the year.

With time, various forms of data transmission, SMS and fax will all become interchangeable, removing current barriers to communication.

The future is looking even more promising for cellular operators as technologies converge. "The time is almost right for mobile data to take off," says Mr Darbrough of consultants Analysys.

"Over the next two to three years we will see a significant increase in data traffic over digital cellular, although initially a lot of it will probably be SMS and e-mail." Mr Darbrough estimates that it will be 12 to 18 months before mobile data becomes significant in revenue terms to cellular operators.

In some countries the process is already further advanced. According to Danish GSM operator Sonofon, 5 per cent of its subscribers already use data now, as opposed to a European average closer to 3 per cent.

All sorts of advanced applications are being tested. For example, Derbyshire Constabulary in conjunction with Cellnet is conducting trials with Apple Newton message pads, enabling police officers to send various forms of data back from the scene of a crime and so avoid having to return to the police station to fill in paperwork.

New products are also being launched which integrate computing and telecoms technology. Developments in hardware

are making it possible to do more. Last autumn Nokia unveiled its Nokia 9000 communicator which combines a palmtop computer and cellular handset in one unit. It looks like a chunky mobile handset but also includes a screen and proper keypad.

Another solution recently launched on the market is the HP OmniGo communicator, which is a palmtop computer with a data card already built into it and which has a special port that can accept a Nokia GSM or PCN phone. All you do when you wish to send some data is slide your hand-

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AutoAust	1,046	-2	1,045	423	23	Clement	161	-7	834	462	13	VEW	81.45	+1	85	82.68	61.10	31	Ramset	127.30	-35	120.40	72	12	Siemens	1,070	-1	1,100	945	11	Westpac	2.18	-2	2.21	2.11	4.4
AutoAust	442	-2	452	423	23	Coated	789	-7	909	462	13	Verbit	345	-3	393	293	25	Rebeco	127.10	-10	120.40	144.40	25	Siemens	5,500	-1	5,500	4,500	11	Westpac	1.50	-1	1.51	1.49	3.5	
BALAG	1,861	-1	865	655	15	Compaq	2,205	-7	2,205	821	25	Verbit	590	-1	597	582	50	Rebeco	88.40	-10	87.40	84.40	25	Siemens	5,600	-1	5,600	4,600	11	Westpac	1.50	-1	1.51	1.49	3.5	
Braun	716	-8	717	431	13	Credit	141.50	-7	145	151	13	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,700	-1	5,700	4,700	11	Westpac	1.50	-1	1.51	1.49	3.5	
Credit	754	-8	760	665	15	Credit	286.95	-8	286	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,800	-1	5,800	4,800	11	Westpac	1.50	-1	1.51	1.49	3.5	
Daimler	637	-8	638	17	Credit	2,205	-7	2,205	821	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5		
Deutsche	3250	-1	325	277	25	Credit	32.50	-1	325	277	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	141.50	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	325.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	141.50	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	32.50	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	14.15	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	3.25	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	1.41	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.32	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.14	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.03	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.01	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-1	325	277	25	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-10	87.40	84.40	25	Siemens	5,900	-1	5,900	4,900	11	Westpac	1.50	-1	1.51	1.49	3.5	
Deutsche	0.00	-7	145	151	13	Credit	386.95	-8	386	336	25	Verbit	590	-1	597	582	50	Rebeco	88.70	-1																

**Asian Buy,
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PEREGRINE

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INDICES

	Jun 7	Jun 6	Jun 5	High	1996	Low	
Argentina General(3/1/27)	18104.91	18205.44	18148.56	18881.95	205	15828.91	193
Australia All Ordinaries(1/1/80)	2220.1	2211.8	2229.7	2238.00	264	2187.40	113
All Miners(1/1989)	1045.6	1040.1	1057.1	1118.40	8/5	1004.70	16/1
Austria Credit Austria(30/12/94)	380.90	(d)	391.92	384.99	31/5	352.78	2/1
Tecder Index(3/1/91)	1136.23	(d)	1138.88	1142.91	2/5	975.27	2/1
Belgium SEB(1/1/1991)	1747.60	1757.29	1760.94	1773.28	3/5	1574.80	2/1
Brazil Bovespa(3/1/1983)	55302.0	(d)	55679.0	57108.00	295	43801.00	2/1
Canada Metal Mine(1/1979)	5238.86	5304.54	5226.27	5242.60	8/5	4827.47	16/1
Composite(1/1978)	5137.30	5158.77	5184.90	5283.90	22/5	4738.78	15/1
Portuguese(5/1/1983)	2511.72	2524.64	2536.73	2565.56	27/5	2273.38	12/1
China IPA Gen(31/12/90)	5345.87	(d)	5331.32	5304.33	8/1	5215.28	8/4
Denmark Copenhagen(2/1/1983)	403.43	403.37	(d)	407.07	295	368.40	2/1
Finland HSI General(28/12/90)	2008.48	2034.24	2043.15	2070.42	31/5	1661.87	10/1
France S&P 500(1/1/1980)	1441.96	1467.56	1449.53	1467.56	6/6	1250.18	2/1
CAC 40(31/12/87)	2101.99	2133.22	2115.35	2146.79	30/4	1889.35	11/1
Germany FZI Allcom(31/12/88)	902.58	(d)	889.49	904.93	2/5	818.58	2/1
Commerzbank(1/1983)	2581.30	(d)	2591.10	2601.90	2/4	2220.20	2/1
Dax(30/12/87)	257.43	(d)	2552.53	2570.78	21/5	2284.85	2/1
Greece Athens SEC(1/12/90)	922.91	916.37	922.90	917.56	4/3	901.03	2/4
Hong Kong Hong Kong(31/7/64)	11196.55	11225.83	11092.51	11584.99	16/2	10204.87	2/1
India Sensex(1979)	3567.81	3830.31	3813.05	3968.87	24/4	3226.05	2/1
BSE Sensex(1979)	3567.81	3830.31	3813.05	3968.87	24/4	3226.05	2/1
Indonesia JAKARTA Comp.(1/6/83)	612.76	613.22	616.07	636.21	3/4	512.48	2/1
Ireland ISEO Overall(4/1/89)	2555.45	2576.17	2586.00	2576.17	5/6	2234.81	2/1
Italy Borsa Comex Ital(1972)	661.94	664.98	661.92	674.10	20/5	572.21	2/3
MEI General(2/1/98)	1121.0	1127.0	1122.0	1142.00	20/5	990.00	2/3
Japan Nikkei 225(16/5/49)	21751.81	21804.46	21881.43	22282.05	24/4	18734.70	13/3
Small Stocks(1/1/83)	308.35	304.70	310.89	318.08	26/4	284.48	11/2

INDEX FUTURES

Open Sett Price Change High Low Est. vol. Open int.

PACIFIC

US INDICES

New Jones	Jan 7	Jan 6	Jan 5	1996 High	1996 Low	Since compilation High	Since compilation Low
Utilities	5897.11	5887.18	5887.48	5776.88 (2/5)	5022.84 (10/7)	5776.88	41.22
Bonds	101.48	101.77	101.84	100.03 (14/2)	101.19 (9/5)	102.77	54.99
Transport	2237.41	2233.88	2232.25	2236.28 (2/5)	1882.71 (10/7)	2236.20	12.32
Others	218.47	216.24	216.07	214.08 (12/2)	216.42 (7/5)	216.48	10.50
J Ind. Day's high	5708.93	(5750.67)	Low 5530.05	5530.43	(4/10/94)	(Theoretical)	
Day's high	5897.11	(5722.98)	Low 5880.38	(5883.34)	(Accum)		
Standard and Poors							
Index	573.31	573.03	578.44	578.91 (2/5)	558.48 (9/7)	578.81	4.40
Industrial	803.53	800.98	807.88	807.88 (5/5)	702.07 (10/7)	807.88	3.82
Technology	67.34	68.22	68.56	68.65 (5/5)	58.87 (10/1)	68.38	8.84
S&P Comp.	360.61	361.10	363.38	361.74 (2/5)	321.41 (10/7)	363.74	4.46
Small Mid Val	593.31	592.84	601.27	614.98 (2/5)	528.05 (10/1)	614.98	29.31
SDAQ Grp	1229.78	1232.54	1246.14	1248.14 (5/6)	988.57 (10/1)	1246.14	54.87
RATIOS							
				May 31	May 24	May 17	Year ago
New Jones Ind. Div. Yield				2.18	2.15	2.17	2.48
				June 5	May 29	May 22	Year ago
& P Ind. Div. yield				1.83	1.85	1.83	2.21
& P Ind. P/E ratio				22.74	22.30	22.71	16.77
NEW YORK ACTIVE STOCKS							
Day	Stocks traded	Clos. prior 1st day	Change	May 31	May 24	May 17	Year ago
Aeron	10,370,100	14½	+½	2.18	2.15	2.17	2.48
Mort	8,854,400	12	-	June 5	May 29	May 22	Year ago
Al	8,140,300	10½	+½				
Wmsons	5,007,800	35½	+½				
Merita	4,446,500	18	-				
Telef Egit	4,402,100	48	-½				
W-Mart	4,024,500	25	+½				
Comtech	3,578,800	30½	+½				
Global Net	3,275,000	31½	-½				
Wkly Network	3,253,700	26½	-½				
Open	Sett price	Change		High	Low	Est. vol.	Open Int.
S&P 500							
Am	673.05	673.80	+0.55	674.50	661.25	72,745	148,173
Avia	692.30	670.70	-1.60	696.00	627.10	9,404	17,796

Unit 7 / Word

CURRENCIES AND MONEY

POUND SPOT FORWARD AGAINST THE POUND

Jan 7	Closing mid-point	Change on day	Bid/offer	Days' mid-low	One month	Three months	One year	One year	Bank of Eng. Index
				Rate NPA	Rate %PA	Rate %PA	Rate %PA	Rate %PA	
Europe									
Austria (Bch)	16,6484	+0,0573	419 - 548	16,5975	16,5941	16,5771	2,3	16,5421	2,8
Belgium (DKY)	16,6484	+0,0573	408 - 525	16,5760	16,5740	16,5619	2,8	16,5719	2,7
Danmark (DKY)	16,6484	+0,0573	408 - 525	16,5760	16,5740	16,5619	2,8	16,5719	2,7
Finland (FIM)	7,2225	+0,0192	583 - 602	7,2270	7,2400	7,2200	1,7	7,2201	0,7
France (FF)	8,0148	+0,0217	117 - 178	8,0417	8,0525	8,0019	1,9	7,9789	1,9
Germany (DM)	12,9585	+0,0217	988 - 1002	12,9722	12,9555	12,9398	2,4	12,9499	2,7
Greece (Dr)	2,3785	+1,157	485 - 750	3,0762	3,71721	2,3698	24	2,3046	2,6
Ireland (IE)	0,9700	+0,0003	753 - 765	0,9780	0,9744	0,9795	0,6	0,9743	0,7
Luxembourg (LFR)	12,9184	+0,048	468 - 522	12,8780	12,8338	12,8619	19	12,8034	20
Netherlands (NL)	12,9184	+0,048	468 - 522	12,8780	12,8338	12,8619	19	12,8034	20
Norway (NOK)	10,1176	+0,0081	685 - 725	10,1377	10,0760	10,0488	1,0	10,0821	1,0
Portugal (PTE)	2,4419	+0,007	034 - 284	2,4414	2,4434	2,4434	-2,1	2,4549	-2,2
Spain (Pte)	10,559	+0,127	488 - 589	20,042	19,534	19,549	-1,6	20,0364	-1,6
Sweden (SEK)	10,4035	+0,0232	793 - 818	10,4130	10,3930	10,4079	0,9	10,4077	0,9
Switzerland (SF)	1,9518	+0,0144	508 - 529	1,9571	1,9402	1,9488	8,1	1,9388	8,2
UK (GB)	1,2518	+0,0042	610 - 625	1,2545	1,2470	1,2505	1,2	1,2475	1,4
Ecu	-	-0,0033	-	-	-	-	-	-	-
SDR	-	-0,0033	-	-	-	-	-	-	-
Americas									
Argentina (Peso)	1,5386	+0,0008	381 - 400	1,5403	1,5391	-	-	-	-
Brazil (R\$)	1,5404	+0,0201	294 - 309	1,5459	1,5396	-	-	-	-
Canada (C\$)	2,1048	+0,0201	404 - 406	2,1141	2,1038	2,1041	0,4	2,1004	0,8
Mexico (New Pesos)	1,0032	+0,0022	793 - 104	1,0330	1,0312	-	-	-	-
USA (Dollars)	0,9447	+0,0033	414 - 430	1,0443	1,0412	1,0424	0,4	1,0404	0,2
Pacific/Nicelle East Africa									
Australia (A\$)	1,9478	-0,0123	482 - 494	1,9584	1,9482	1,9501	-1,6	1,9554	-1,6
Hong Kong (HKD)	11,9332	-0,0002	304 - 359	11,9183	11,9267	11,9261	0,8	11,9135	0,7
India (Rs)	6,6512	+0,0124	324 - 370	6,5040	5,9820	-	-	-	-
Japan (Yen)	5,0381	+0,0002	100 - 102	5,0381	5,0381	5,0381	-	5,0381	-
Malaysia (RM)	3,6004	+0,0012	489 - 519	3,5871	3,5804	-	-	-	-
New Zealand (NZD)	2,0317	+0,0043	922 - 928	2,1023	2,0328	2,0305	-2,6	2,3157	-2,8
Philippines (Peso)	2,0317	+0,0085	922 - 928	2,1023	2,0328	2,0305	-2,6	2,3157	-2,8
Saudi Arabia (Dr)	5,7820	+0,0001	605 - 624	5,7815	5,7804	-	-	-	-
South Africa (R)	8,2500	+0,0197	244 - 316	8,2577	8,2576	-	-	-	-
South Korea (Wons)	18,280	+1,155	565 - 585	18,277	18,275	-	-	-	-
Taiwan (TWD)	42,7467	+0,0053	807 - 827	42,6552	42,7109	-	-	-	-
Thailand (Baht)	31,0075	+0,0218	822 - 128	31,2750	31,0860	-	-	-	-

1 Rates for Jun 7. 2. Major currencies are quoted in the last two decimal places. Forward rates are also displayed in the market but are implied by current interest rates. Indicated rates are those of the Exporter. Base average 1990 = 100. Interest rates are not officially quoted in the market but are implied by current interest rates.

2 Current rates per \$ US. Dollar spot rates are only the latest exchange rates. Forward rates are not officially quoted in the market but are implied by current interest rates. UK, Ireland & ECU are quoted in US currency. J.P. Morgan nominal indices for Jun 7 base average 1990=100.

3 Current rates per \$ US. Dollar spot rates are only the latest exchange rates. Forward rates are not officially quoted in the market but are implied by current interest rates.

4 Current rates per \$ US. Dollar spot rates are only the latest exchange rates. Forward rates are not officially quoted in the market but are implied by current interest rates.

5 Current rates per \$ US. Dollar spot rates are only the latest exchange rates. Forward rates are not officially quoted in the market but are implied by current interest rates.

6 Current rates per \$ US. Dollar spot rates are only the latest exchange rates. Forward rates are not officially quoted in the market but are implied by current interest rates.

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FT MANAGED FUNDS SERVICE

• FT Cityline Unit Trust Prices: dial 0891 430010 and key in a 5 digit code listed below. Calls are charged at 39p/minute cheap rate and 49p/minute at all other times. International access available by subscription only. For more details call the FT Cityline Help Desk on (+44 171) 873 4311.

OFFSHORE AND OVERSEAS

BERMUDA (SIB RECOGNISED)

● FT Cityline Unit Trust Prices: dial 0891 430010 and key in a 5 digit code listed below. Calls are charged at 39p/minute cheap rate and 49p/minute at all other times. International access available by subscription only. For more details call the FT Cityline Help Desk on (44 171) 873 4378

OFFSHORE INSURANCES

MANAGED FUNDS NOTES	
Prices are in place unless otherwise indicated and those designated P with no prefix refer to U.S. dollars.	Yields % reflect for all buying expenses.
Yields % reflect for all buying expenses.	Prices of certain older insurance related plans subject to capital gains tax on sales.
Yields % reflect for all buying expenses.	The regulatory authorities for these funds are:
Bermuda - Bermuda Monetary Authority	Cayman - Financial Services Commission
Ireland - Central Bank of Ireland	Jersey - Financial Supervision Commission
Isle of Man - Financial Services Authority	Luxembourg - Commission de Surveillance du Capital Investissement
Malta - Malta Financial Services Authority	Initial charge - Charge made on sale of units.
Selling price - Net asset value per unit.	Selling price - Net of redemption price.
Buying price - Order or stated price.	
Time - The time shown alongside the fund manager's name is the time of the fund's valuation point unless indicated by one of the following symbols:	
0000 - 12:00 noon Eastern time	
- 11:01 to 14:00 Eastern time	
(4) - 14:01 to 17:00 Eastern time	
(p) - 17:01 to midnight	
E - End charge on sale of units.	
C - Manager's periodic charge deducted from capital.	
F - Premium pricing F - Forward pricing	
G - Premium pricing G - Backward pricing	
H - Premium pricing H - Alternative asset class.	
I - Single investment insurance	
J - Designated as a UCITS (Undertakings for Collective Investments in Transferable Securities).	
K - Other price includes all expenses except agent's commission.	
L - Premium day's price.	
M - Premium day's price.	
N - Yield based on money tax.	
P - Ex-substitution, net - Ex-dividend.	
Q - Only available to charitable entities.	
R - Yield column shows unannualized rates of NAV increase.	
The fund prices on these pages are also available on the Internet at www.mutualfund.com .	

LONDON SHARE SERVICE

LONDON SHARE SERVICE

NEW YORK STOCK EXCHANGE PRICES

4 pm close June 7

1,880,000 x 0.82 1.1 21 2441 84% 82%

1990-1991

If the business decisions are yours,
the computer system should be yours.



NYSE PRICES

- 4 pm close June 7

1988																												
High	Low Stock	Div	Y	%	Ex	100s	High	Low	Code	Class	Chips	Prf.	Div	High	Low Stock	Div	Y	%	Ex	100s	High	Low	Code	Class				
Continued from previous page																												
203 134 Schaff x	0.08	0.03	47	1125	163	17%	163	-	1-3	-	21% 182 TempEquity	0.27	1/4	121	194	152	164	-	1-3	63% 47% VF Corp x	1.44	2.3	28	1020	61	805	92%	
21 17 Sodas	0.10	0.05	12	92	20	19%	20	-	1-3	-	7% 64 TempTech x	0.50	0.7	204	570	585	575	-	-	23 22% Vireo Inc	0.32	1.0	203	272	274	274	-	
42% 36% Sodas	0.52	0.2	25	213	44%	44%	44%	-	1-3	-	22% 34% Temp Plus	0.25	0.8	10	215	354	344	354	-	-	7% 54% Vireo Inc	0.20	2.5	18	58	74	67	71%
18% 14% Sodas	0.02	0.01	70	143	14%	14%	14%	-	1-3	-	9% 46% Tera	0.08	0.7	2	85	85	85	85	-	-	25% 21% Vireo Capital	0.72	7.0	180	180	180	180	-
12% 11% Sodas	0.06	0.01	234	124	12%	12%	12%	-	1-3	-	14% 11% Terra Inds	0.18	1.2	7	1202	134	131	133	-	-	6% 5% Vireo Ind	0.20	10.4	15	64	64	64	64%
20% 18% Sodas	0.70	0.3	2	15	18%	18%	18%	-	1-3	-	11% 8 Terra	4	4	426	111	111	111	-	-	20 16% Vireo Capital	0.98	10.8	81	55	54	54	56%	
16 16% Sodas	1.48	0.7	8	15	0.05	15	15	-	1-3	-	8% 75% Terra	3.20	3.8	34	4447	541	522	542	-	-	21% 20% Vireo Corp x	0.84	8.7	32	73	71	71	71%
87% 44% Spuds	0.80	0.1	21	2221	65%	53%	54%	-	1-3	-	50% 50% Terra Inc	0.04	0.8	10	171	85	84	85	-	-	11% 11% Vireo Capital	0.72	7.0	180	180	180	180	-
30% 21% Spuds	0.80	0.1	24	3410	33%	34%	35%	-	1-3	-	52% 43% Terra Ind	0.08	1.3	101630	55%	50%	54%	-	-	15% 8% Vireo Ind	0.32	0.8	12	475	59	57	59%	
24% 17% Spuds	14	9.56	21%	214	21%	21%	21%	-	1-3	-	32% 25% Terra Pac	0.40	1.3	20	304	302	302	302	-	-	20% 24% Vireo Corp	1.88	4.2	35	21	21	21	21%
45% 26% Spuds	0.26	0.05	20	300	35%	35%	35%	-	1-3	-	24% 24% Terra Tech	0.20	5.01	0.02	2379	403	394	395	-	-	18% 22% Vireo Corp	0.32	0.8	12	475	59	57	59%
53% 24% Spuds	0.92	0.18	15	8127	52%	50%	52%	-	1-3	-	3% 24% Terra Tech	1.10	35.2	45	314	3	31	31	-	-	36% 24% Vireo Corp	1.12	2.5	10	454	54	54	54%
22% 18% Spuds	1.24	0.56	22	961	62%	62%	62%	-	1-3	-	20% 20% Terra Tech	1.78	21	17	3573	702	702	702	-	-	14% 12% Vireo Corp	1.08	8.3	0	57	13	13	13%
13% 11% Spuds	0.84	0.06	52	125	12%	12%	12%	-	1-3	-	52% 3% Terra Tech	0.5	5	254	432	372	372	-	-	70% 70% Vireo Corp	5.00	5.0	1	74	74	74	74%	
41 21% Spuds	0.22	0.12	16	8340	18%	18%	18%	-	1-3	-	17 13% Terra Tech	1.90	13.7	17	157	612	573	573	-	-	32% 24% Vireo Corp	1.50	20.9	25	25	25	25	25%
43% 38% Spuds	0.50	0.15	24	24	41	43%	43%	-	1-3	-	27% 21% Terra Tech	0.17	0.5	155	235	235	235	-	-	32% 24% Vireo Corp	1.12	2.5	10	454	54	54	54%	
50% 35% Spuds	0.48	0.08	31	2206	59%	58%	58%	-	1-3	-	44% 30% Terra Tech	0.12	0.3	37	200	477	429	434	-	-	30% 24% Vireo Corp	1.12	2.5	10	454	54	54	54%
33% 26% Spuds	1.02	0.31	14	341	32%	32%	32%	-	1-3	-	44% 32% Terra Tech	0.08	1.7	7	634	617	595	594	-	-	11% 6% Vireo Corp	1.12	2.5	10	454	54	54	54%
8 4% Spuds	11	1782	54%	54%	54%	54%	54%	-	1-3	-	20% 19% Terra Tech	1.12	2.8	19	502	392	384	392	-	-	37% 25% Vireo Corp	0.40	1.9	17	33	25	25	25%
48% 28% Spuds	5.4001	1.00	41	400	40%	40%	40%	-	1-3	-	25% 21% Terra Tech	2.31	2367	23%	224	234	234	234	-	-	30% 25% Vireo Corp	1.00	2.5	10	454	54	54	54%
13% 7% Spuds	0.70	0.16	10	1451	45%	43%	43%	-	1-3	-	25% 21% Terra Tech	0.40	1.9	17	33	25	25	25	-	-	30% 25% Vireo Corp	1.00	2.5	10	454	54	54	54%
13% 7% Spuds	1.31	0.21	12	517	12%	12%	12%	-	1-3	-	25% 21% Terra Tech	0.40	1.9	17	33	25	25	25	-	-	30% 25% Vireo Corp	1.00	2.5	10	454	54	54	54%
21 21% Spuds	0.10	0.03	43	2079	20%	20%	20%	-	1-3	-	49% 20% Terra Tech	0.50	1.2	32	4414	401	392	401	-	-	24% 16% Vireo Corp	2.3	3.5	1	571	571	571	571%
8 5% Spuds	1.16	0.50	11	103	23%	23%	23%	-	1-3	-	70% 40% Terra Tech	0.40	0.5	20	754	734	72	72	-	-	23 20% Vireo Corp	1.97	6.5	13	350	301	304	304%
27% 21% Spuds	0.30	0.1	31	5537	20%	20%	20%	-	1-3	-	45% 34% Terra Tech	0.35	0.9	03	6513	471	404	414	-	-	26 17% Vireo Corp	1.11	17.2	25	25	25	25	25%
30% 21% Spuds	0.21	0.1	21	1635	23%	24%	24%	-	1-3	-	47% 37% Terra Tech	0.40	0.9	14	2442	441	43	441	-	-	31 10% Vireo Corp	0.28	0.8	64	377	304	304	304%
44% 22% Spuds	0.08	0.02	10	34	415	8%	8%	-	1-3	-	7% 5% Terra Tech	1.20	3.0	11	430	385	365	362	-	-	31 10% Vireo Corp	0.5	15	30	30	30	30	30%
44% 22% Spuds	0.18	0.04	31	4418	31%	31%	31%	-	1-3	-	7% 5% Terra Tech	1.5	16	61	65	65	65	65	-	-	31 10% Vireo Corp	0.5	15	30	30	30	30	30%
25% 15% Spuds	0.90	0.23	23	75	23%	23%	23%	-	1-3	-	7% 5% Terra Tech	1.00	6.6	2100	115	115	115	-	-	31 10% Vireo Corp	0.5	15	30	30	30	30	30%	
25% 22% Spuds	0.05	0.03	13	56	9%	9%	9%	-	1-3	-	10% 6% Terra Tech	0.56	5.9	36	14	95	95	95	-	-	31 10% Vireo Corp	0.10	0.4	48	101	101	101	101%
25% 22% Spuds	0.25	0.03	25	741	31%	30%	30%	-	1-3	-	15% 15% Terra Tech	1.11	20	78	161	161	164	164	-	-	31 10% Vireo Corp	0.48	1.5	20	202	202	202	202%
25% 22% Spuds	1.23	0.25	23	502	33%	32%	32%	-	1-3	-	50% 22% Terra Tech	0.23	0.8	19	43	35	35	35	-	-	31 10% Vireo Corp	0.5	15	30	30	30	30	30%
25% 22% Spuds	0.22	0.03	23	502	34%	34%	34%	-	1-3	-	48% 34% Terra Tech	1.16	2.8	20	623	427	417	424	-	-	31 10% Vireo Corp	0.48	1.5	20	202	202	202	202%
45% 32% Spuds	1.03	0.21	16	713	48%	47%	47%	-	1-3	-	25% 21% Terra Tech	1.82	8.0	10	241	241	241	241	-	-	30% 21% Vireo Corp	0.48	1.5	20	202	202	202	202%
45% 32% Spuds	0.66	0.14	24	204	20%	20%	20%	-	1-3	-	25% 21% Terra Tech	2.20	24	11	845	521	512	521	-	-	30% 21% Vireo Corp	0.48	1.5	20	202	202	202	202%
45% 32% Spuds	1.22	0.21	13	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23%	23%	-	1-3	-	25% 21% Terra Tech	0.45	0.7	10	250	692	647	651	-	-	30% 21% Vireo Corp	0.20	1.1	36	265	265	265	265%
45% 32% Spuds	0.22	0.03	23	368	23%	23																						

NASDAQ NATIONAL MARKET

340

AMEX PRICES

[REDACTED]

	PY	Sls		PY	Sls		PY	Sls		PY	Sls		PY	Sls		PY	Sls		PY	Sls	
Stock	Div.	E	100s	High	Low	Close	Stock	Div.	E	100s	High	Low	Close	Stock	Div.	E	100s	High	Low	Close	Cong
Av Magz	28	5	1912	1912	1912	1912	ConEd FdA	10	27	517	517	517	517	Halco	0.10	30	170	221	21	21	-24
Av Inc	10	112	216	216	216	216	Comsat A	0.64	21	386	171	171	171	Hannaford	10	65	63	61	62	62	-2
Baby Ind	23	767	70	85	70	70	Crown CA	0.40	2	30	17	15	15	Hannaford	0.16	20	78	131	131	131	-2
Bar Po	1.84	7	2100	392	392	392	Crown CB	0.40	2	56	181	150	161	Int'l Corp	27	8941	1010	95	104	104	-2
Bank of Am	0.05	46	1641	115	105	112	Cubic	0.53	23	43	33	32	34	Int'l Corp	45	160	17	16	17	17	-2
BankExpo	132	67	6132	131	131	132	Customized	16	9	151	2.5	2.5	2.4	Int'l Corp	0.10	25	7837	27	27	27	-2
Capital AmA	58	6	53	53	53	53	DI Inds		5	5147	17	13	13	Jen Bell	27	55	3	2	3	3	-2
Capri Inv	2.00	10	13	181	181	181	Diamond	13	205	14	14	14	14	Kinark Cp	11	39	4	4	4	4	-2
Cartech	21	183	61	61	61	61	Easton Co	0.48	24	3	113	113	113	Kirby Exp	42	230	18	175	18	18	-2
Carf	11	5035	82	75	75	75	Ecolab En A	0.32	27	48	81	83	83	Kopf Eq	7	342	612	125	125	125	-2
Carfam A	5	91	54	51	51	51	Edisto Fls	19	481	10	9	10	10	Labora	69	929	93	81	83	83	-2
Carfam PDR	46	5	37	37	37	37	Epitope	18	427	19	19	19	19	Laser Ind	62	264	17	165	165	165	-2
Carfam PDR	46	5	37	37	37	37	Fab Inds x	0.70	18	2100	26	26	26	Luxon Inc	3	13	10	10	10	10	-2
Carfam PDR	46	5	37	37	37	37	Fair Fls	2.00	15	25	54	54	54	Lynch Cp	24	5	81	9	90	90	-2
Carfam PDR	46	5	37	37	37	37	Forest Ls	18	2008	41	340	41	41	Maccarrone	8	24	42	415	42	42	-2
Carfam PDR	46	5	37	37	37	37	Frequency	98	38	6	6	6	6	Media Ax	0.48	20	319	37	365	365	-2
Carfam PDR	46	5	37	37	37	37	Genset	0.80	14	38	16	16	16	Men's Co	0.20	2	15	4	4	4	-2
Carfam PDR	46	5	37	37	37	37	Giant FdA	0.76	19	400	34	33	34	Micromedia	6	3046	151	141	131	131	-2
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Carfam PDR	46	5	37	37	37	37	Health Dr	3	625	13	13	13	13	MGR Expl	13	5	11	11	11	11	-2
Carfam PDR	46	5	37	37	37	37	Health Dr	0.40	21	2827	37	37	37	MediPharm	80	155	114	107	114	114	-2
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Financial Times - World Business Newspaper

FT GUIDE TO THE WEEK

MONDAY 10

N Ireland peace talks

The "all-party" talks on Northern Ireland's future will begin in Belfast without Sinn Féin, the IRA's political wing, unless the IRA announces a last-minute ceasefire. This is in spite of Sinn Féin gaining 15 per cent of the votes in elections leading up to the talks. Participants will include the two main nationalist parties, the moderate nationalist SDLP, the non-sectarian Alliance party and two groups with links to Protestant paramilitaries. At the insistence of the Irish government, the chairman will be George Mitchell, a close aide to US President Bill Clinton. The opening session calls for discussion of an agenda for broader political and constitutional issues before going into the question of arms decommissioning.

EU signs Slovenia agreement

The former Yugoslavia will be a main topic on the agenda of EU foreign ministers in Luxembourg. The EU will sign a long-awaited association agreement with Slovenia. Ministers will also hear from Jacques Santer, the Commission president, and Lamberto Dini, the Italian foreign minister, on their joint tour of Sarajevo, Zagreb, Belgrade and Skopje. Other important items include an exchange of views with Klaus Hinsch, the European parliament president, on the on-going intergovernmental conference to revise the Maastricht treaty. The rest of the meeting is likely to be disrupted by the UK's non-cooperation policy in protest over the ban on British beef exports.

US delegation to Ulster

A US investment mission to Northern Ireland visits Belfast, Newry and Dundalk, led by William Ginsberg, the acting assistant commerce secretary whose trip follows the peace-through-economic development efforts of Ron Brown, the late commerce secretary. The delegation will promote investment in information technologies and joint ventures between Irish companies and 11 US businesses on the mission (to June 13).

UK fights fish quotas

EU fisheries ministers have their first chance to discuss proposals from the Commission for cuts of up to 40 per cent in some fishing fleets between 1997 and 2002. The proposals, which are to protect dangerously over-exploited fishing stocks, have provoked fury in the UK and several other states. The UK is expected to raise the issue of quota-hoppers - foreign-owned and crewed boats which take advantage of another country's quota by registering there. The meeting will be unaffected by the UK's non-cooperation because decisions require only a qualified majority.

Menem at EU-Mercosur talks

Carlos Menem, the Argentine president, begins a three-day visit to Belgium and



Russian soldiers in Chechnya put up a polling station sign for the Russian presidential elections in which they will be voting on Sunday

Luxembourg. This coincides with the first mixed EU-Mercosur commission meeting in Brussels, which will discuss a move towards free trade between Europe and the Mercosur regional block. Mercosur covers 200m consumers in Argentina, Brazil, Uruguay and Paraguay. Mr Menem, Mercosur's temporary president, will announce the creation of an EU-Mercosur business forum, through which 400 Latin American companies will develop closer links with European counterparts.

Tennis

Stella Artois grass-court tournament, Queen's Club, London (to June 16).

FT Surveys

International Capital Markets: Telecommunications in Business.

Public holidays

Argentina, Australia (except Western Australia), Colombia, French Guiana, Guyana, Jordan, Macao, Portugal, Thailand, Uganda, Venezuela.

TUESDAY 11

India vote of confidence

Debate opens in India's Lok Sabha parliament before a confidence motion on Wednesday which is expected to cement power in the United Front coalition government led by H.D. Deve Gowda. Mr Gowda's 13-party coalition is the second government to be formed after India's elections last month following the two-week tenure of the Bharatiya Janata Party regime. Mr Gowda's coalition has the backing of both the Congress party and India's main communist party. It is expected to pass the vote with ease.

Public holiday**Oliver North tries for Senate**

Oliver North, the controversial operative in the Reagan White House, challenges John Warner, an incumbent senator for the state of Virginia, in the state's Republican primary. Colonel North's last senatorial launch in 1994 was defeated largely because of Mr Warner, a former Reagan administration budget director.

EU revises cross-border TV

EU culture ministers in Luxembourg are hopeful about reaching a common position on revision of the 1989 Television Without Frontiers directive, which regulates cross-border broadcasting and sets minimum quotas on EU broadcasters for EU-produced programming. The directive will extend the principles of the 1989 law to new types of broadcasting such as teleshopping but will not - as mooted - extend into online services and the Internet. Four decisions requiring unanimity will be vetoed by the UK.

The Answer - by Waldheim

Kurt Waldheim, the former Austrian president and UN secretary general, is to present his latest autobiography in the Vienna parliament. *The Answer* is expected to be Mr Waldheim's response to allegations of ties with war-time Nazi crimes, which marred his 1986-1992 presidential term. Although Mr Waldheim was a junior intelligence officer with the German army, he has always denied any involvement in atrocities. In a previous autobiography, Mr Waldheim skipped over key episodes of his military career and misrepresented his war-time record.

Clarke at Mansion House

Kenneth Clarke, the UK chancellor, delivers the annual Mansion House speech. Eddie George, the governor of the Bank of England, will also speak. Markets will be looking for signs as to whether Mr

ECONOMIC DIARY**Statistics to be released this week**

Day Released	Country	Economic Statistic	Median Forecast	Previous Actual
Mon	Germany	May unemployment (west)*†	-7,000	-17,000
June 10	Germany	May unemployment (pan-Germany)*†	-15,000	-62,000
	Germany	March employment (west)*†	-30,000	-97,000
UK		April cyc indicators 2nd estimate	-	n/a
UK		May producer price index input*	0.3%	0.8%
UK		May producer price index input**	2.8%	3.0%
UK		May producer price index output*	0.1%	0.3%
UK		May producer price index output**	3.1%	3.2%
UK		May Brit Retail Consor retail survey*	-0.4%	-
Tues	US	May producer price index	-	0.4%
June 11	US	Mitsubish index	-	-2.2%
US		April consumer credit	-	\$6.3bn
Japan		Apr mch'n ord ex-elec per & ship* 7.7%	2.4%	-
Japan		Apr mch'n ord ex-elec per & ship* 11%	-10.5%	-
Japan		Bank of Japan bank data	-	n/a
UK		April construction orders	-	n/a
UK		April industrial production*	0.1%	0.3%
UK		April industrial production**	1.2%	0.6%
UK		April manufacturing output*	-0.0%	0.2%
UK		April manufacturing output**	0.4%	0.2%
Wed	US	May Atlanta Fed Index	-	-0.4%
June 12	US	May real earnings	-	-0.4%
US		May consumer price index	0.3%	0.4%
UK		May unemployment	-8,000	-3,200
UK		April average earnings	3.75%	3.75%

*month-on-month, **year-on-year, † seasonadj.

WEDNESDAY 12**Elections in Bangladesh**

Bangladesh votes for the second time in four months to try to settle a bitter two-year struggle between the two main political parties. The vote follows an abortive poll boycotted by the country's three main opposition parties, led by the Awami League of Sheikh Hasina, Khaleda Zia, whose Bangladeshi Nationalist Party swept to power unopposed in the flawed and violent poll, stood down in favour of an interim government created to administer the present election.

ILO attacks child labour

More than 100 labour ministers meet in Geneva to discuss how to eliminate child labour. Hosted by the International Labour Organisation, the meeting will focus on the most abusive forms of such labour, including dangerous work and child prostitution. An ILO study shows that more than 13 per cent of children aged between 10 and 14 are in employment worldwide, excluding girls in full-time domestic work. An ILO convention on child labour is to be adopted in 1999.

Clarke at Mansion House

Kenneth Clarke, the UK chancellor, delivers the annual Mansion House speech. Eddie George, the governor of the Bank of England, will also speak. Markets will be looking for signs as to whether Mr

Motor racing

Le Mans 24-hour race.

Public holidays

Malawi, Solomon Islands.

George was in full agreement with last week's 0.25 percentage point reduction in interest rates.

Saleroom

A furious scene of Arabs fighting on horseback is the highlight of Sotheby's sale of 19th-century European paintings in London. Painted in the 1850s by the French artist Théodore Chassériau, the work is expected to make up to £1.5m. Another potential star painting is "Playa de Valencia", by the Spanish artist Sorolla y Bastida. This shows fishermen and women on a beach.

FT Surveys

Britain; Construction Research.

Public holidays

Paraguay, Philippines, Russia.

THURSDAY 13**D Dayton peace plan reviewed**

Officials from the US, Europe, and Islamic countries, and humanitarian and financial organisations meet in Florence, Italy, for the mid-term review of the one-year Dayton peace plan (to June 14).

More than 80 institutions are to participate in order to certify that conditions have been met for Bosnia-wide elections in September (even though Bosnian Serb leader Radovan Karadzic - wanted on war crimes charges - remains in power). It will also evaluate the implementation of the military and civilian aspects of the Dayton accords.

Golf

US Open, Oakland Hills, Michigan (to June 16).

Public holiday

Portugal (Lisbon only).

FRIDAY 14**Cuba plays regional host**

About 100 parliamentarians from Latin America and the Caribbean meet in Cuba to debate topics such as national sovereignty and independence, regional integration and parliamentary democracy (to June 15).

The meeting is organised by Cuba's ruling Communist party, the National Assembly (parliament) and by the Sao Paulo Forum, a regional organisation of leftwing Latin American parties and movements. US legislation to discourage foreign investment in Cuba will be strongly condemned. Foreign dignitaries expected include Daniel Ortega, the former president of Nicaragua.

Motor racing

Le Mans 24-hour race.

Public holidays

Malawi, Solomon Islands.

SATURDAY 15

Queen's birthday honours

Queen Elizabeth II's biannual official birthday honours list of peers, knights and medal winners is announced. The honours will again follow procedures laid down by John Major, the prime minister. These allow people to write in and make nominations, setting out why they think somebody should be decorated.

Japan 'car killer' launched

Chrysler launches a 2.000cc sedan in Japan which the domestic car industry originally nicknamed the "Japan car killer". The moniker for the Neon was coined three years ago because of its aggressively low price. However, after cost-cutting by Japanese car makers, the Neon is unlikely to be such a big threat - and cheapness alone has been shown not to sell cars. Furthermore, sedans are suffering because of the Japanese love affair with recreational vehicles.

Public holiday

Hong Kong.

SUNDAY 16**Yeltsin poised in Russia poll**

Russia's 105m voters go to the polls to elect a president in what could be the first free democratic elections for executive office in its 1,000 years as a sovereign nation. President Boris Yeltsin has climbed to the top in most opinion polls. However, his chief rival, Gennady Zyuganov, the Communist party candidate running on a fiercely nationalist ticket, may do better than the polls suggest. Other candidates, such as the ultra-nationalist Vladimir Zhirinovsky and the liberal Grigory Yavlinsky, could also prove strong. If nobody wins more than 50 per cent of the vote, the two front runners will compete in a run-off in July.

Sailing

Britain's Pete Goss is tipped to win the main mono-hull class in the single-handed transatlantic yacht race from Plymouth, in Britain, to Newport, US. Eighty yachts are taking part in the 3,000-mile race, which happens every four years.

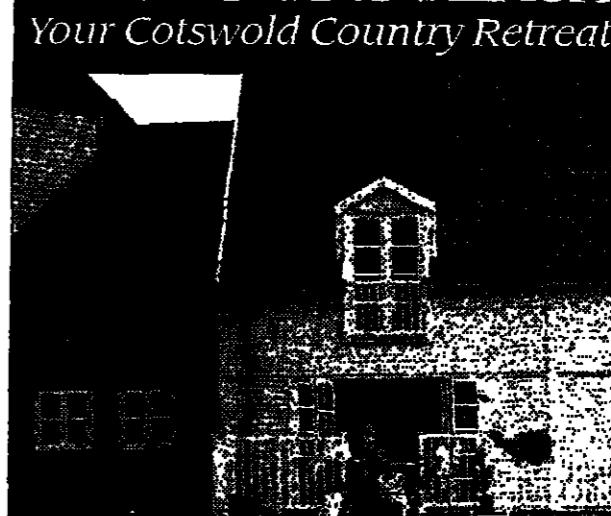
Motor racing

World champion Michael Schumacher of Germany is starting to catch Britain's Damon Hill in this season's Formula 1 championship. They renew their struggle in the Canadian grand prix in Montreal.

Public holiday

South Africa.

Compiled by Simon Strong.
Fax: (+44) 0171 873 3194.

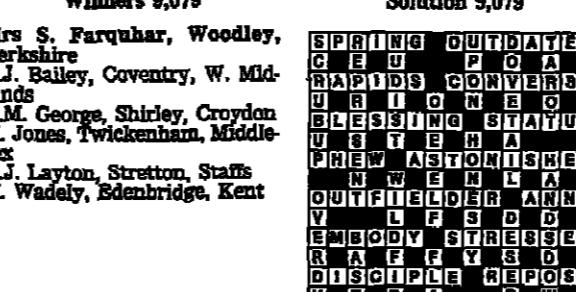
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DISCIPLE REPPOSE
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JOTTER PAD

BUSINESS EDUCATION

Large corporations are losing their attraction for MBA graduates, says Tony Jackson

Downing a bitter potion

As the downsizing wave in America continues, big corporations sometimes give the appearance of turning their backs on the workforce. One small but important group of workers seems to be returning the compliment: the MBA graduates from America's business schools.

In 1990, 59 per cent of the MBA (master of business administration) class at Stanford went to work for companies with more than 5,000 employees. By 1995, the figure had dropped to 32 per cent. The numbers going to companies with less than 50 employees went up from 11 per cent to 14 per cent.

Alan Merten, dean of Cornell's business school, says: "The theory used to be that working for a small company gave you high risk and a high return, while you got low risk and low return at a big company. Now big companies are risky as well."

Samuel Culbert, professor at the Anderson business school at UCLA in Los Angeles, puts it more starkly. "Our MBA students have seen their parents' [employment] history, the betrayals and the broken promises. They're so afraid of the organisation that they devote enormous creativity to developing scenarios for entrepreneurship."

At Cornell, Merten says, the most popular optional class in the MBA course is that on entrepreneurship. Partly, this is because studying the small company gives a better grasp of how the whole business works. But



there are also students who want to work for small companies on principle.

"Frankly, it's scaring the big companies," he says. "They're having to become much more aggressive on campus in their recruiting."

There is another aspect to the phenomenon: the sharp rise in MBA recruitment by management consultancies, which – the likes of Andersen and McKinsey apart – are mostly small organisations. Consultancy swallowed a third of the class of 1994 from both Stanford and the University of Pennsyl-

vania's Wharton school. A decade previously at Wharton the figure was only about 15 per cent.

This is the result of rapid growth in the consulting industry and its consequent appetite for good graduates. But that growth is in turn intimately connected with the downsizing and re-engineering movement. For a bright MBA, there is obvious appeal in wielding the axe rather than being its target. When it comes to hiring, not all big companies seem to be equal. The biggest single hirer at Cornell this year,

Merten says, is Hewlett-Packard. "That's a classic example of a big company operating as a group of small companies," he says. "Others try to present themselves that way."

Eugene Skogge, head of recruiting at General Electric, agrees. "Big companies do have to present themselves as smaller entities," he says. "All our market research has shown that the more specific you can make the job and its opportunities, the more the appeal."

According to Skogge, GE has encountered no difficulties. The company has 12 operating divisions. Of those, the main hirer of MBAs is GE Capital, which alone comprises 25 different subsidiaries. "While we always show our links to the bigger company," Skogge says, "our strategy is to showcase the individual businesses."

If a classic conglomerate such as GE can pull this trick off, other big companies may find the going harder. The implications for corporate America are thought-provoking.

As Merten observes, graduates who succeed with small companies may be lost to the big corporations for good. "In a small company, you work across a broad range of disciplines. It will be harder to attract successful people to the narrower work of the big company." If so, downsizing may turn out to be not just a euphemism, but a literal truth: the fragmentation of American business into smaller entities in terms of jobs and economic performances that might, in the long run, be no bad thing.

Goodbye to the case study and simulation

Academics at HEC school of management in Paris have developed a method of teaching which they say improves on the traditional case study or simulation.

Students on the bilingual MBA course (French/English)

are given data on the development of an actual company – Ferrovial dello Stato (FS), the Italian national railways – over five years, together with information on transport generally in the region. They are then given four potential scenarios and have to formulate strategies based on the information.

The three-and-a-half-day study ends with each group presenting their solutions to the chief executive of FS. *Hec France, J 39 67 70 00*

NEWS FROM CAMPUS

by the China Europe International business school

and run as a joint venture between the Chinese school, the university of Michigan business school and the international graduate school of management at the university of Navarra, in

Group of four chosen for training scheme

Four UK organisations have been selected to develop a continuing professional development scheme for managers in all areas of business.

The model, which should be fully developed by next summer, is intended to provide a relevant way for managers to develop their skills in line with both their personal objectives and the goals of their organisation.

The partners selected by the Management Charter Initiative for the government-funded scheme are the Association of Accounting Technicians, the Engineering Council, the Institute of Administrative Managers and the Royal Institute of British Architects.

MCU, UK, 0117 872 9000

• The latest book focusing on lifelong learning has been published by Kogan Page, in London. *Lifelong Learning* is co-authored by Norman Longworth, vice-president of the World Initiative on Lifelong Learning and Keith Davies, president of the European Lifelong Learning Initiative.

Kogan Page, UK, 0117 278 0433

What women want in the business world

SPORT / ARCHITECTURE

Bit backward in looking forward

With a sporting history so rich and widely admired, it is tempting to live in the past, says Keith Wheatley. But Britain should steel itself against nostalgia



What a week for sporting nostalgia. In Dublin, Ohio, that charming dinosaur Tom Watson wins his first tour event for nine years and throws golf's vast heritage industry into overdrive. Euro '96 kicks off in England and has been treated, so far, mainly as an opportunity for UK writers and broadcasters to revisit England's triumph in the 1966 soccer World Cup.

Memories are vital a part of sport's complex menu as adrenal or despair. But for Britain, bygone games make a deadly cocktail. There is nothing wrong with a taste for liquor or a love of fast cars, but those with a passion for both seldom achieve much except an early grave.

In Britain, a thirst for the past is apparent everywhere. When it comes to the preservation of old building and other bits of heritage, the National Trust, probably Britain's most successful non-commercial organisation, is the envy of the world. Our children might be unable to do simple maths, our industrial trainees unable to tell software from semaphore, but our country houses are impeccable beneath their olive green paint, curated by middle-class people who would be far better employed as voluntary teachers than sitting guard in old drawing-rooms and selling tea tickets.

To a certain extent, the nostalgia kick can be seen as a return to quality. There are far more interviews with Bobby Charlton in the sports pages than with Paul Gascoigne, and any football writer will tell you why. The most widely shown television advertisement connected with Euro '96 features George Best, a genius who hasn't kicked a football for 20 years. With a sporting past so rich, interesting and widely admired, it is far too tempting to look backwards.

For a country infatuated with its past, suspiciously unwilling to imagine a changed and better future, good ol' Tom proved as comforting as Ovaltine at bedtime

That was why my blood ran cold when Watson sunk his putt on the 18th green last Sunday to win the Memorial Trophy. It turned to ice when Jack Nicklaus said afterwards: "It was the most thrilling win of any I've seen in the past 10 years. It means an awful lot for the game of golf."

Really? I can't help thinking that over the next decade Ernie Els, Colin Montgomerie and the giant Scot Gordon Sberry are going to excite the contemporary golf fan far more than tales of Tom Watson.

I remember vividly the Saturday night at the 1994 British Open at Turnberry

ton in the sports pages than with Paul Gascoigne, and any football writer will tell you why. The most widely shown television advertisement connected with Euro '96 features George Best, a genius who hasn't kicked a football for 20 years. With a sporting past so rich, interesting and widely admired, it is far too tempting to look backwards.

The reptiles behaved like small children when the funniest uncle tells them they're cute. Gosh, don't we want Tom to love us and our funny seaside golf links. For a country already perilously infatuated with its past, suspiciously unwilling to imagine a changed and better future, good ol' Tom proved as comforting as Ovaltine at bedtime.

"I'm gonna bring my boy over and teach him to play golf the way it started out," said Tom "Huck" Watson, adding that he'd just read three chapters of a homage to Harry Vardon, the guru of pre-war golf. There was not a throat without a lump in the packed press conference. When Tom delivered his familiar opinion that Britain was probably the last civilised country, the seduction was complete.

British self-esteem soared. Britain had scarcely a golfer worth a damn under 30, but this charismatic and courteous Yank loved us. Age is part of Watson's appeal. For every middle-aged British golf fan with a mildewed bag and a flat refusal ever to take a lesson, Watson is proof that life begins at 46. When he won his first

British Open at Carnoustie, Rhodesia was still part of the empire and the Austin Maxi was a hot hatchback.

Happily, we believe that Tom is secretly one of us, that he would be happier living in the land of Marks and Spencer pull-overs and replays of Bobby Charlton's goals. What rubbish. Watson is smarter than his audience.

"It's a strain playing away from home. Home is where you take deep slow breaths. On tour you're always panting," said Watson, who lives contentedly for 95 per cent of the year in his native Kansas rather than at the Scottish seaside.

As filtered by a British audience that yearns for a golden past rather than an uncertain future, Watson's message is as infectious a narcotic as any substance sold on a street corner. Buy a tweed jacket, wear a collar and tie at dinner, play golf at the windy seaside with Harry Vardon in your bag and be gap-toothed polite to old ladies and British journeymen.

To believe everything that Watson says is a sure way to guarantee that golf in Britain fails to recover its momentum among the young - to ensure that the boom years of Faldo, Lyle and Woosnam become a bleak upward blip on a steady graph of decline.

Meanwhile, young Kiwis, Aussies and Swedes - with no golden past to cling to - are all over golf's leaderboards like a rash. But there is no future in sending for Dr Watson - despite his announcement that his sights are set on this week's US Open.



Tom Watson displays his winning trophy after thrilling the nostalgia junkies in the Memorial Tournament last week in Ohio

Every year there is this strange opportunity to look at a shop window of the visual arts in Britain: the Royal Academy's summer exhibition. At the heart of all the detritus is the architecture room, where the architect-academicians have a chance to show their wares. There are 22 architects associated with the RA, including a clutch of foreign notables who have honorary status.

Inevitably in an institution that is not about change, the work on show is going to represent the work of an establishment. It could be argued that the whole exercise is pretty pointless and that the result of a lot of cronies promoting each other can only be a kind of car-boot sale of miscellaneous designs.

However, there is more to it than that. More people visit the RA than any other art exhibition in the year, and it is the only regular review of the state of architecture

Lost in the muddle of a jumble sale

The Royal Academy's summer exhibition lacks clarity and needs completely re-thinking to reveal the best architectural works, says Colin Amery

that the public can see with any ease. I observed on the opening day that just as many visitors spend as long in the architecture room as they do looking at pictures and sculpture. The only difference is that they are even more baffled in the architecture room. This is not so much to do with the eclectic nature of the works on show with the absurdly old fashioned and cluttered nature of the display.

I understand that the president of the RA, Sir Philip Dowson, is an architect, but he seems reluctant to take a grip on the RA's promotion of architecture to the public. I suppose the artists are fighting the

architects for every inch of wall space but surely, Sir Philip, it is time to take a stand. One measly room - which this year is overcrowded to the point of absurdity - is a joke.

The public are highly sophisticated and used to brilliant and scholarly exhibitions, like the incomparable pair of exhibitions about the work of Degas currently at London's National Gallery. This gallery never patronises its public. It never gives them anything but the very best. In recent years, every visit to its premises has been a powerful experience.

When it comes to architecture, the Royal Institute of British

Architects' recent show of the work of Mario Bellini showed how powerfully contemporary architecture can be conveyed. Or take a look at the City of Glasgow's current show on Charles Rennie Mackintosh, which is of the highest quality and is a sell-out.

Selected works should be beautifully designed

The tragedy of the jumble sale approach to selection and display is that the good work is lost in the muddle. This year the most inter-

esting and, architecturally, the most powerful exhibit at the RA is Sir Norman Foster's scheme for the transformation of the British Museum. It is breathtakingly wonderful. The models at the RA show it in all its splendour, the glass net thrown over the heart of the museum sheltering all the new space that will be released by the removal of the British Library to St Pancras.

It is not just elegant and ingenious but it is about the way great architecture can transform lives. I just pray that the British Museum will not compromise on this scheme.

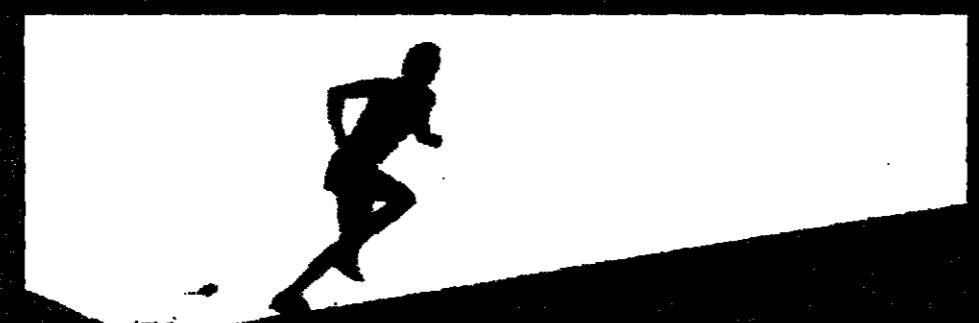
There must be no cost-cutting

architectural display. In themselves, the selected works should be beautifully designed and captioned.

For example, this year's room inevitably has a lot of lottery and millennium projects, not least the big wheel for London sponsored by British Airways and the nonsensical scheme by Sir Richard Rogers which puts most of the concrete horrors of the South Bank under a glass roof to protect them for ever. What a chance to examine publicly the proposed millennium projects for the capital.

The kind of clarity that Sir Norman Foster brings to the British Museum is exactly what is needed at the RA. Its summer exhibition needs completely re-thinking, so that the architectural element is treated separately as a summer review of the architectural scene. First of all, Sir Norman Foster should be offered a few of the air-conditioned galleries in which to design the academy's

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MEDIA FUTURES

NY learns there's more to books

Public libraries are undergoing a digital transformation, says Victoria Griffith

A visit to the new Science, Industry and Business Library in Manhattan, admirers say, is a step into the library of the future.

Touch-screen kiosks have replaced the traditional information desk at the entrance to the building, which used to house the turn-of-the-century B Altman department store on the corner of Madison Avenue and 34th Street. In the reading room, dozens of people are plugged into the Internet; others are using CD-Roms. On the lower floor, an instructor teaches a packed class how to navigate in cyberspace. Seventy computers in the electronic information centre pump out data on everything from US exports of dolls - "with or without clothes" - to a demographic profile of Shanghai.

According to the architects, Gwathmey Siegel & Associates of New York:

"The newly renovated interior reinforces SIBL's image as a 'library without walls', a transparent membrane through which information and resources flow freely between the library, international business and research communities, and the public."

In fact, many see the new facility as the library prototype of the digital age.

Since it opened last month, SIBL, a branch of the New York public library, one of the largest in the world, has received visiting librarians from nearly 30 countries.

The French have spent \$1.6bn on a new library and the British more than \$500m, but none of them offer the Internet access people can get here," says Paul LeClerc, president of the New York public library.

Public libraries are undergoing a transformation. Visions of the future range from complete extinction of today's libraries to super-libraries serving global citizens.

In an effort to keep up with the times, the world's largest libraries are rushing to make at least some of their material available online. Dreamers hope that a researcher in Saudi Arabia, say, may soon be able to enter the New York public library in cyberspace and download a volume.

"People ask if there will still be the need for physical facility if everyone can plug into a virtual library," says Betty Turock, president of the American Library Association.

SIBL is one of the most advanced public libraries to open in recent years, and its high-tech systems are attracting plenty of attention. Yet what may be



Prototype of the digital age: New York's Science, Industry and Business library has attracted visitors from all over the world

most instructive is what it retains in terms of traditional - physical - library facilities as what it eliminates.

Financed by corporate and private donations as well as state and local funds, SIBL is not an ephemeral cyber-construction but a solid building. Even its collection of books is far from virtual, occupying five floors.

Indeed, LeClerc believes that the concept of a truly virtual library - one with no physical existence - will remain a head-fantasy for some time.

Publishing is an industry interested in making profits, he says. "Access for all would create a problem because if everyone could [download] a book for free, why buy it?" Of course, you could institute a fee system to compensate writers, but that would defeat the purpose of a public library - to provide access to information free of charge.

Despite cyberspace, physical copies of books and periodicals still serve a purpose. Although much of its information is available electronically, the New York public library system estimates that two-thirds of SIBL users at any moment are searching for original hard copies of texts.

"There are still things that are very time-consuming to transfer to computers such as photographs and illustrations," says Bill Kenny, a spokesperson for the library.

Cost is also a concern for public

libraries hoping to go digital. While many libraries around the world are making some of their material available on the Internet, complete transition would entail massive expense.

"Who's going to pay for us to transfer the 52m items we have at the New York public library to computers?" LeClerc asks. "That would cost hundreds of millions of dollars, and you have to ask what the benefit to US taxpayers is that someone in Buenos Aires can take out a New York city library book on the Net."

The people who created SIBL pondered long and hard whether to provide an e-mail service. In the end, they decided not to.

"It would have been unworkable," says Kenny. "People would have been in here all day sending and receiving messages, and we would have been overwhelmed. Anyway, it's not really the point of a library to provide telecommunications services." However, the library helps users set up their own home pages on the Net.

Despite the barriers to virtuality, the digital revolution is gradually changing traditional libraries into multimedia operations. Readers must still visit SIBL in person to take out a book. But the library provides 24-hour online access to what used to be known as its card catalogues. And it is busily scanning in some material to offer over the Internet.

In turn, the retrieval of statistics has been greatly simplified. No one has to struggle laboriously with monstrous volumes any more. Instead, a simple computer search puts statistics instantly on-screen.

To improve its access to cyberspace, the library is phasing in plenty of equipment so that users can tap into the Internet. "I'm here because I want to get on the Internet," said Daniel Mironchuk, a New York consultant doing research at the library. "First they give you a free class, and then they let you plug into it for nothing. Where else can you get that?" Another user said he liked to use the Internet at the library because it afforded him virtual anonymity.

SIBL doesn't look or feel like a traditional library.

"Flexibility was a key part of the design because information technology can be expected to change dramatically over the next few decades," says architect Charles Gwathmey. "We put in plenty of room for new conduits so you don't have to redo the design every time you want to make some changes."

That SIBL will change - and change again - seems inevitable. For now, it looks impressive. Yet cyberspace may turn public libraries into dinosaurs - or even stranger creatures. The future of the library of the future is impossible to foretell.

Information battle enters a new dimension

Ray Snoddy on plans to harness satellites' vast data-handling power to deliver interactive services

data, for their computer screen.

Market research by DirectTV suggests there is a considerable appetite among its subscribers not just for data, but for the ability to pull up moving pictures, and sport in particular, on computer screens.

Sports fans would welcome the ability to keep in touch with a ball game while working on other things through a small television picture in the corner of their screen. A Pentium standard multimedia computer would be needed for such services.

Hartenstein is also looking at ways of making the World Wide Web more easily and quickly available. The top 100 Web sites, many only updated weekly, account for a disproportionate amount of Internet traffic.

DirectTV is planning to broadcast the top 100 sites on a daily basis to PCs. The information can then be interrogated instantly by the user.

"You have the impression of real-time interactivity," says Hartenstein, who adds that the Web plan is just one of the

ways in which DirectTV intends "to stay a couple of steps ahead".

DirectTV says that its satellites could be used to squirt the entire text of a newspaper such as the Financial Times to subscribers' PCs in four to five seconds.

Interest is growing in harnessing the huge information-carrying power of satellites to deliver interactive services, and not just in the US.

SES, the Luxembourg satellite company, announced last Friday that it would be offering business-to-business data services from its latest generation of satellites from 1998.

Hughes is planning similar systems in Latin America and has been looking at the European market for some time. DirectTV leads the market in US satellite TV systems and in addition to Hubbard Broadcasting, which uses the Hughes satellite system, more competitors are entering the market. Primestar, a consortium of top cable companies, including Telecommunications Inc of Denver, already has more than 1.1m subscribers, mainly in rural areas where there is no cable. Last April, the new service Echostar launched with more than 100 channels and already has in excess of 30,000 subscribers.

Rupert Murdoch plans to launch an MCI/Fox service in 1998 with up to 200 channels.

BSkyB, which plans to launch a 200-channel service by the end of next year and move quickly to up to 500 channels, hopes the price of the box can be reduced

to around £200.

The cost of the DirectTV system initially started at \$700

although the full cost, including installation, was closer to \$1,000.

But in the past few weeks Circuit City, one of the large electronic chains, has been offering DirectTV receivers for \$399.

"We are on the road to \$299

next year and at that price all

market research says it becomes a mass consumer product," says Hartenstein.

The DirectTV service, which offers most of the channels available to US cable subscribers, devotes 55 channels to the latest hit movies, and hundreds of "out of town" basketball, baseball and American football games.

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BUSINESS TRAVEL

Travel News • Roger Bray

Romania's crime beat
Romanian policemen are on the crime beat in Romania. With petty street thieves such as pickpockets and bag snatchers rampant, especially in Bucharest, they have been robbing visitors while pretending to check foreign currency and passports.

Travellers are advised not to produce money, but to ask to be taken to the nearest police station. It may not work, but it's worth a try.

A flying football fest
Travellers reluctantly abandoning their TV sets

during Euro 96 are offered some slight compensation by British Airways.

The airline is screening news, results and highlights from Euro 96. However, it promises to give plenty of warning before the action from matches is shown on touchscreen screens, so if you're getting someone at home to video the action and are desperate to avoid hearing the score, you had better get out your earplugs and eyeshades.

The Euro-plastic age
Credit cards remain relatively unwelcome in Germany, a

survey by Which? the UK Consumers Association magazine shows. MasterCard and/or Visa are accepted in Germany at just over 510,000 outlets, Which? discovered.

In contrast, the total number of outlets accepting the two cards in France is almost 1.2m. Spain has moved rapidly into the plastic age, with a total of more than 1.1m such outlets. In Italy, however, where plastic is still raised at many petrol stations, the two credit cards are accepted by only 524,000 outlets in total.

Further smoking bans
The latest onslaught against in-flight smoking comes from Lufthansa, the German

airline, which has imposed a ban aboard all its flights to the UK and Ireland.

Frank Zable, the airline's regional marketing manager, says that over the past two years there has been a steady increase in complaints from passengers about smoking, particularly on relatively short journeys. Lufthansa already forbids it on German domestic services, and some international services.

Fares to Canada fall
The cost of business travel to Canada has taken a summer plunge. Until September 2 Air Canada is cutting the cost of Executive First tickets from the UK to Calgary, Edmonton,

and Vancouver to \$1,089. That is little over a third of the usual price in the airline's hybrid business and first class cabin, which is \$2,916 to Vancouver.

During the same period, the fare to Halifax, Nova Scotia, comes down from £2,184 to £799. You have to book at least 14 days before departure and you must stay a Saturday night before flying home.

But that is positively liberal compared with this time last year, when the equivalent fares required a minimum stay of two weeks.

Besides, at this time of year, with the Rockies on your doorstep in Calgary, for example, and Vancouver at its

most radiant, it shouldn't be much of a penance.

Plea from the heart
Most airlines choose not to carry vital equipment which experts say could save hundreds of lives each year, a BBC travel programme will say today.

The key device needed on flights is a defibrillator, which can give an electric shock to get the heart beating regularly after an attack.

The BBC's Summer Holiday programme will show that, of 20 major airlines questioned, only two - Virgin Atlantic, the UK airline, and Australian carrier Qantas - carry defibrillators.

Likely weather in the leading business centres

	Mon	Tue	Wed	Thu	Fri
New York	24	25	25	27	27
Hong Kong	30	31	29	29	29
London	23	24	25	25	25
Paris	25	26	26	27	27
Edinburgh	25	26	26	27	27
New York	27	28	28	28	28
L. Angeles	24	25	26	26	26
Paris	25	26	26	27	27
Zurich	25	26	26	26	26

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BRITISH AIRWAYS

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Amman

A new marketing team is applying the Virgin touch to ease the problems of Eurostar, writes Charles Batchelor

New light in the tunnel



UK side opens in 2003. There are now up to 16 daily departures each way between London and Paris, and seven between London and Brussels.

But trains between London and Paris are still only 60 per cent full on average while those to Brussels are just 30 per cent full. With 770 seats - 210 in first class and 560 in standard - each Eurostar is the equivalent of two Boeing 747 aircraft.

Unimaginative ticket pricing has been only one of the problems which Eurostar has had to overcome. It has also had to contend with a ticket reservation system which most travel agents could not access.

Eurostar started out using the Socrates computerised reservation system, developed by French Railways, SNCF, and its British Rail equivalent, Tribune. But for travel agents who did not already use these

systems, this meant investing in another computer network, and most could not justify the cost.

"I can book an airline ticket by computer and print it out straight away but for Eurostar I have to phone a number in Ashford, which takes 20 minutes to reply, and then wait for the ticket in the post," says Roger Thompson, chairman of the Guild of Business Travel Agents' technology working

party. Following complaints from travel agents, Eurostar is now extending the availability of its tickets to the more common reservation systems.

This early inflexibility extended to transferring tickets. If passengers wanted to travel on a different service to the one they had booked for, they had to buy a new ticket and claim a refund on the unused one. However, the protests had had the desired effect: straightforward ticket exchanges are now possible.

Early reliability problems with the Eurostars have also been largely overcome. The over-sensitivity of on-board computers meant that several early trips were halted when sensors mistakenly detected power supply problems and brought trains to a halt.

The computerised system has undergone no fewer than six modifications to iron out these difficulties, and Eurostar now reckons that between 85 per cent and 90 per cent of its trains are on time or within 15 minutes of schedule.

For many travellers, though, the airlines still have the edge in total journey time. The lack of dedicated high-speed tracks in the UK and Belgium means that parts of the train journey are at conspicuously low speeds. The exhilaration of travelling at 300km/h (186mph) on the French high-speed track only highlights the slowness of

the sections in the UK and Belgium.

Eurostar will not establish a speed advantage over the airlines until the high-speed link is completed in the UK. Journey times now are 3 hours between London and Paris and 3 hours 15 minutes between London and Brussels. When the Belgians complete their high-speed sections in May 1998, the Brussels journey time will fall to 2 hours 40 minutes. And when the British build their fast track, journey times will fall to 2 hours 30 minutes (Paris) and to 2 hours 10 minutes (Brussels).

Meantime, the much-delayed regional services are finally to be introduced. Day-time services from Manchester and Birmingham on the west coast main line and from Glasgow, Edinburgh and Newcastle upon Tyne on the east coast line are due to start later this year, while sleeper services are due to start early next year. However, the appeal of the new generation of sleepers - despite their promise of greater comfort and privacy - is still untested.

However, Eurostar remains optimistic that it can challenge the airlines' present dominance of cross-Channel business travel. "We have only scratched the surface of the business market," said Richard Branson at the launch of the new fares and services last month. "The airlines will find a lot more business travellers will switch over."

Artful persuader, This Week

Seats up for grabs

Cathay Pacific has started auctioning US-Hong Kong seats on the Internet, Roger Bray writes. The airline sets a minimum price of US\$300 (£194) in economy class, US\$600 in business and US\$1,200 in premium-first. Cathay believes it is the first to try cyberbids, although it has no plans to extend the system to Europe.

The airline says: "The idea was to test the Internet in the US and stimulate the market. Flights from Europe are much fuller anyway." It is thought that bids for seats from New York and Los Angeles have come mainly from individuals, but that some travel agents have also been pitchin.

• Piped music in hotels is now being relayed by satellite. Jarvis Hotels, the mid-priced UK chain, recently signed up for a system that delivers more than 100 different "moods".

John Jarvis, chairman, says: "It comes out of Georgia on the Astral channel. They are using recordings by known artists and you can programme them into various parts of the hotel. You can have light rock at breakfast, orchestral music with dinner and something softer after that."

Business travellers will also soon be able to exchange their Premium First Class return rail tickets for travel on British Midland's Diamond EuroClass air service, allowing them to switch from train to plane or vice versa if their travel plans change or if air travel is interrupted by bad weather.

Virgin is a member of the

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OPENINGS

RAVENNA
Riccardo Muti (top right) is Ravenna's most famous citizen, and his wife Cristina helps to organise the town's music festival - so there are no prizes for guessing who will conduct this year's opening concert on Sunday. Muti also directs two opera productions - "Così fan tutte" and "Cavalleria Rusticana". Guest artists at the festival include Maurizio Pollini (bottom right), Pierre Boulez (far right) and Simon Rattle.



ARTS

GENEVA

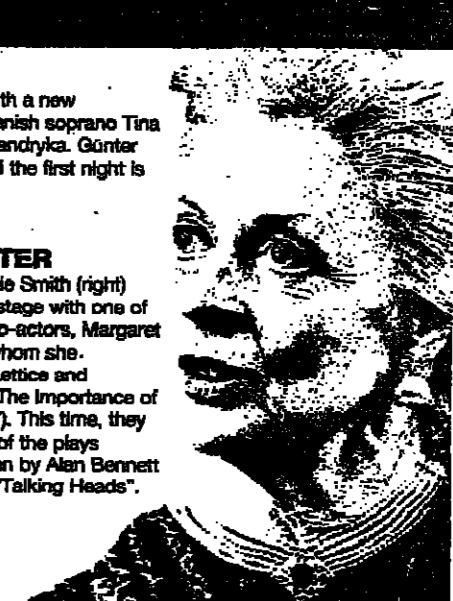
The 1995-96 season at the Grand Théâtre ends with a new production of Richard Strauss's "Ariadne". The Danish soprano Tina Kiberg sings the title role and John Brücheler is Mandryka. Günter Neuhold conducts a staging by Helmut Polka, and the first night is on Sunday.

AMSTERDAM

An unusual attempt to reconstruct Aeschylus' tetralogy "The Danaids" is the centrepiece of this week's performances at the Holland festival. The Romanian stage director Silviu Purcăreanu, working with Greek scholars, has waded through fragments of text into an evening of theatre. The production, with a cast of 120, can be seen at Westergasfabriek from Wednesday till Saturday, before moving to the Avignon festival next month.

CHICHESTER

Tonight, Maggie Smith (right) returns to the stage with one of her favourite co-actors, Margaret Tyack (with whom she appeared in "Lattice and Lovage" and "The Importance of Being Earnest"). This time, they appear in two of the plays originally written by Alan Bennett for television, "Talking Heads".



Master of dramatic tension

Andrew Clark talks to director Luc Bondy as his 'Don Carlos' arrives in London

The opening night of *Don Carlos* tomorrow is one of the most eagerly awaited events of the season at Covent Garden. It not only unifies a stellar cast in the five-act version of Verdi's opera, sung in the original French; it also offers London a rare glimpse of the work of Luc Bondy, whose revelatory production of *Solome* was a highlight of the Royal Opera's 1994-95 season.

Along with Peter Stein, Peter Brook, Patrice Chéreau and a handful of others, Bondy, 47, belongs to that elite band of directors who have dominated world theatre in the latter part of the 20th century. The son of middle-European Jews, he was born in Zurich but educated in France, and won early recognition as a stage director in Germany. For the past 20 years he has divided his life between Berlin and Paris, tackling spoken theatre, opera and film with equal success.

Apart from *Solome*, the only chance British audiences have had to see his work was in 1994, when his production of Peter Handke's wordless play *The Hour We Knew Nothing of Each Other* visited the Edinburgh festival. The National and several other British theatres have tried to engage him, but he says his English is not good enough.

Don Carlos, which comes to London from the Châtelet in Paris, is likely to be Bondy's last opera for several years. His Salzburg *Figaro*, one of his few flops, will be revived next month, and the Easter festival has pencilled him in for *Simon Boccanegra* in 1998. But his energies will be devoted increasingly to organising the drama programme at the Vienna festival, and directing a film of Maupassant's *Bel-Ami*, the script for which he is writing with the French author Françoise Sagan.

Bondy could have been an author himself - he wrote the libretto for Philippe Boesmans' opera *Reigen*. He could equally have been an actor or academic. But after attending Jacques Lecoq's drama school in Paris, he knew he wanted to direct, and within 10 years he was working at the Berlin Schaubühne next to Peter Stein.

At home in one of Paris's multi-ethnic *arrondissements*, Bondy comes across as a mixture of family man, workaholic and cosmopolitan intellectual. He says he would never choose to create an opera production in a big repertory theatre like Covent Garden: "Their way of working and mine just don't go together." At the Châtelet, he had six weeks of uninterrupted rehearsal on the main stage before the production opened in February. In London he has only had to supervise the restaging.

Bondy's strength as a director lies in his ability to explore human behaviour in situations of extreme

dramatic tension. What is important, he says, is that we believe in the characters and their relationships, even in a context of dream or fairytale. Bondy's productions unfold in a wealth of meticulously disciplined detail, developed on an intuitive, quasi-improvisatory basis. For singers used to more conventional methods, it is an exacting and often frustrating process: Bondy demands their constant presence, and regularly changes the make-up of each scene. But the rewards are great, because the end-product is so strong that it can withstand the many compromises that performance entails.

and a grandness on stage. It's visually overpowering, it's socially overpowering. I want to bring it back to essentials."

It was Bondy who insisted on the fullest possible five-act version. He says that even in Schiller's play, *Carlos* is not the most interesting person because he is too much of a victim. Elisabeth provides the key to his approach. "Hers is the problem of exile, to be in a country to which she wanted to come when she thought she was in love, but it's finished even before she leaves France. That's the reason for this version: you must see the moment when the illusions fall. She becomes

that's opera. In a work as big as this, it's normal. In some plays by Shakespeare, you also have moments when you think 'What can I do with this?'. Parts of *The Winter's Tale* are impossible. It's as if the musician, the dramatist, loses himself but has to find himself again. It has to be like that, it's like life. There are very few works with a real force from start to finish."

Bondy defines the role of a stage director as "writing in the air". He says the problem is that it's a contradiction: "Why should you have to tell someone how to cross a room and open a window? I once saw the biggest parody of directing in the square at Avignon: a street artist was spontaneously directing everyone who passed. 'Hey you, please go there. Now you, come here.' There was some truth in this moment."

"The most difficult thing is to realise the rhythm of life. It's a complex form, but there are some rules. For example, there can be more tension between two people if they are far away than if they are side-by-side. The ideal is to influence, to let the actors say things their own way. When you're young, you want to form everything. The older you get, the more you think everything should be left *au naturel*".

So in Bondy's rule-book, there is no room for "messages", concepts or shock values. Astonishingly, for someone who cut his teeth in German theatre, he dismisses the whole Brechtian tradition, saying his idea of the stage is "something open, not a mystery-box. The idea of having actors playing their parts like a commentary - I can't stand it".

He holds equally trenchant views on the unrelenting search for modernity in classical theatre. "Modernity doesn't mean an up-to-date setting - it's more a question of feeling the time, without having to put the signs on the surface. If you don't reach the nerve-centre of the work, in the way singers move and sing together, all you have is an opera with modern decor, played out in a traditional way."

"What must be up-to-date is the way people react emotionally and physically, because this has changed with time. In the 17th, 18th and 19th centuries, people behaved as if very much in control, and they collapsed if something terrible happened, like an overreaction. We're in another time, we have different signs. You see it in the conventions of American cinema - the way actors like Al Pacino point their finger. I'm sure in Shakespeare's or Verdi's time they never acted like this. Perhaps opera hasn't got to grips with the fact that the grammar of moving has changed. Modernity means getting the actors to react in a way that means something to us, and matching it to the historical setting of the author's imagination."



Luc Bondy: 'Modernity doesn't mean an up-to-date setting... what must be up-to-date is the way people react emotionally'

For those reasons, *Don Carlos* made a huge impact in Paris. Here were Roberto Alagna, Thomas Hampson and other gifted singers, interacting with an expressive subtlety all too rare in international opera. But some in the audience were disappointed. German critics looked in vain for a political dimension, while many of their French colleagues bemoaned the lack of spectacle. For them, Bondy had missed the point of grand opera.

Bondy is unrepentant. "They wanted to see all the pomp and ceremony of the Spanish court. I can't do this, because I don't think it's the most important element in *Don Carlos*.

For me, it's a personal story about love and hate, about the world of emotions. Too often in opera, there has to be a correspondence between the grand element in the audience

Dupré and Saint-Saëns; 8pm; Jun 13
Staatsoper unter den Linden
Tel: 49-30-2082861

• Staatskapelle Berlin: with conductor/violinist Pinhas Zukerman perform Mozart's Violin Concerto in G major, KV216, Violin Concerto in A major, KV219 and Symphony in D major, KV385; 8pm; Jun 11, 12

OPERA
Deutsche Oper Berlin
Tel: 49-30-3438401

• L'Italiante in Algeri: by Rossini. Conducted by Ion Marin and performed by the Deutsche Oper Berlin. Soloists include Lamore, Person, May, Di Stefano and Lukas; 7.30pm; Jun 12

■ AMSTERDAM

CONCERT
Concertgebouw
Tel: 31-20-5730573

• Ensemble Intercontemporain: with conductor David Robertson and mezzo-soprano Rosalyn Hardy perform works by Schoenberg, Ton de Leeuw and Boulez. Part of the Holland Festival '96; 8.15pm; Jun 13

INTERNATIONAL ARTS GUIDE

Staatsoper unter den Linden
Tel: 49-30-2082861

• Staatskapelle Berlin: with conductor/violinist Pinchas Zukerman perform Mozart's Violin Concerto in G major, KV216, Violin Concerto in A major, KV219 and Symphony in D major, KV385; 8pm; Jun 11, 12

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■ COPENHAGEN

EXHIBITION
Statens Museum for Kunst - Royal Museum of Fine Arts

Tel: 49-33 91 21 26

• Erik Mortensen, Classic Art: exhibition combining the museum's collection of renaissance, baroque and rococo art with some 120 haute couture models by the Danish fashion designer Erik Mortensen; to Sep 1

■ DUISBURG

EXHIBITION
Wilhelm-Lehmbruck-Museum
Tel: 49-203-2832630

• Altersbildnisse in der Abendlandischen Skulptur: exhibition focusing on the theme of old age in Western sculpture. The display features 72 works, including Egyptian, Greek and Roman sculptures and works by artists such

as Rodin, Lehmbruck, Kolwitz, Picasso, Marini and Dalí; to Jun 30

FRANKFURT

CONCERT

Alte Oper Tel: 49-69-1340400

• Verdi-Puccini-Rossini Gala '96: a programme of arias and duets by Verdi, Puccini and Rossini, and Italian folk-songs, performed by the Charkow Philharmonic Orchestra conducted by A. Dzurny; 8pm; Jun 12

OPERA
Deutsche Oper Berlin
Tel: 49-30-3438401

• L'Italiante in Algeri: by Rossini. Conducted by Ion Marin and performed by the Deutsche Oper Berlin. Soloists include Lamore, Person, May, Di Stefano and Lukas; 7.30pm; Jun 12

GLASGOW

CONCERT

Glasgow Royal Concert Hall

Tel: 44-141-332633

• Kris Kristofferson: performance by the American singer; 8pm; Jun 11

■ LONDON

CONCERT
St. John's, Smith Square

Tel: 44-171-2221061

• Delta Jones: accompanied by pianist Malcolm Martineau. The mezzo-soprano performs songs by Steeg, R. Schumann and Berio; 7.30pm; Jun 11

EXHIBITION
Museum of the Moving Image/MOMI Tel: 44-171-9283535

• Image-ine: this exhibition celebrates 100 years of film and takes a leap in the future. Multi-media stations display an encyclopaedia of facts from a century of film; from Jun 14 to Oct 9 Royal Academy of Arts Tel: 44-171-437438

• Gustave Callebotte 1848-1894. The Unknown Impressionist: exhibition featuring works by the

French Impressionist painter Picasso, Marini and Dalí; to Jun 30

THEATRE

Barbican Theatre

Tel: 44-171-6388991

• Julius Caesar: by Shakespeare. Directed by Peter Hall and performed by the Royal Shakespeare Company. The cast includes Christopher Benjamin; 7.15pm; Jun 11, 12, 13 (also 2pm)

■ LOS ANGELES

EXHIBITION
Los Angeles County Museum of Art Tel: 1-213-857-6000

• Masterpieces in focus - Paintings of 20th-century architecture and design, explores glass as a medium for contemporary art and includes works made by a variety of techniques manipulating the glass through blowing, casting, etching, framework, and stained glass; to Jul 30

■ LYON

DANCE
Opéra de Lyon Tel: 33-72 00 45 50

• Ein deutsches Requiem: by Brahms. Performed by the Orchestre de Lyon; perform Dominique Bagot's Deserts d'Amour to music by Mozart and Murali, and Stéphanie Albin's Volta Subito to music by Eichmann; 7.30pm; Jun 11, 12, 13 (8.30pm)

■ NEW YORK

EXHIBITION
International Center of Photography Tel: 1-212-860-1777

• Josef Sudek: The Pigment Prints 1947-1954: exhibition marking the 100th anniversary of photographer

TEL AVIV

EXHIBITION

The Opera House - Performing Arts Center Tel: 972-3-6227777

• Werther: by Massenet.

Conducted by Gary Bertini and performed by The New Israeli Opera. Soloists include François Loup, Sami

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PARIS

CONCERT

Théâtre des Champs-Elysées

Tel: 33-49 52 50 50

• Ein deutsches Requiem: by Brahms. Performed by the Orchestre des Champs-Elysées with conductor Philippe Herreweghe. Soloists include soprano Christine Ozturk and baritone Gerald Finley; 8.30pm; Jun 11

ZURICH

CONCERT

Tonhalle Tel: 41-2036434

• Tonhalle-Orchester: with conductor Alan Gilbert and cellist

Truls Mørk perform works by Schubert and Shostakovich; 7.30pm; Jun 11, 12, 13 (8pm)

■ WORLD SERVICE

BBC for Europe can be received in western Europe on medium wave 648 kHz (463m)

EUROPEAN CABLE AND SATELLITE BUSINESS TV

(Central European Time)

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NBC/Super Channel:

COMMENT & ANALYSIS



Michael Prowse · America

Your turn, Bob

Bill Clinton has fired the first salvo in a tax-cutting war and Washington is now awaiting Bob Dole's response

Bob Dole, the Republican candidate for president, has spent a lifetime opposing other people's tax cuts. He instinctively favours austerity and was as contemptuous as George Bush of the "Voodoo" economics of the Reagan era. One of his last acts in the Senate was to push yet again for a constitutional amendment to balance the budget. Yet it seems all but certain that he will shortly unveil an ambitious plan for cutting and reforming the nation's taxes.

In public Democrats are advising Mr Dole not to do anything so foolish. But in private they worry that a flamboyant tax pledge — say a 15 per cent across-the-board cut in income tax rates — could revive his electoral fortunes. You can tell the White House is nervous of being outflanked: last week President Bill Clinton responded in advance to the expected Dole proposal by offering a \$1,500 (£374) tax credit against the cost of higher education — a transparent attempt to earn the favour of middle-income parents struggling to pay their children's college bills.

The jousting over tax cuts may seem incredible given both candidates' solemn pledges on deficit reduction, not to mention last week's revelation that Medicare, the public healthcare scheme, will go bankrupt by 2001, a year sooner than expected. But taxes are the lifeblood of US politics. Americans have never lost sight of a simple truth: that governments have no resources of their own and can function only by redistributing the income of private citizens.

Indeed, as John Calhoun, a radical 19th-century political theorist observed, if you net out the benefits that individuals get from public services, the population is necessarily divided into two great classes: taxpayers (those who pay out more than they get back in public services); and tax consumers (those who, in effect, live off the productive members of society). Republicans

gain support disproportionately from net providers of resources: Democrats from the net beneficiaries of taxation — Calhoun's tax consumers. Periodic clashes over taxation — over who should support whom and to what extent — are thus inevitable: they are the main reason for having two political parties.

Republicans sense that Mr Clinton is vulnerable on taxes. In his 1992 campaign he promised a tax cut for anxious middle-income families. But he ended up raising taxes substantially, especially on high earners: the only group to get relief was the working poor, via an extension of the earned income tax credit. The top rate of income tax is now more than 40 per cent, about a third higher than when Bush left office. As the chart shows, federal revenues have increased from 17.7 per cent of gross domestic product in 1992 to an estimated 19.1 per cent this year.

This is a noticeable increase. Federal revenues have averaged 18.1 per cent of GDP since the early 1960s, with no sustained tendency to rise in recent decades. The only periods to show a comparable rapid increase were the late 1960s, when taxes were raised to pay for "Great Soci-

Taxes: Clinton reverses Republican cuts

Total revenue (as % of GDP)	Revenue by source (1995)
16	Excise, estate & gift, customs duties and miscellaneous receipts
17	Corporate
18	Social insurance
19	Individual
20	Other
18.7	Recess
18.1	Clinton

Source: Congressional Budget Office

ity" social programmes and the Vietnam war, and the late 1970s when double-digit inflation pushed people unwittingly into higher tax brackets. But Mr Clinton has not faced war or oil crises. And he has nothing to show for his tax increase, except a slightly reduced federal deficit, which excites little gratitude.

He has been struggling to reposition himself since 1994. Soon after the Republicans regained control of Congress, he announced the so-called "middle-class bill of rights". In their latest guise these "rights" consist of tax relief to the tune of \$128m by 2002. The main elements are a \$500 tax credit for children under 13, a \$10,000-a-year tax deduction against the cost of higher education, and tax incentives for individual retirement savings.

Alarmed at the prospect of a radical Dole plan, the White House last week took out extra insurance. The \$1,500 tax credit, which would be available for two years, is aimed specifically at blue-collar families paying too little tax to get the full benefit of the \$10,000 deduction for higher education. The credit is payable in cash to poor families and would roughly cover the cost of tuition at a com-

munity college (a cheap alternative to university for less academic students). The point of the extra relief, Mr Clinton says, is to make two years of college affordable for all — and hence a new minimum standard for the workforce.

By proposing only a small extra tax cut, and one targeted on something as worthy as higher education, Mr Clinton is trying to strike a statesmanlike pose. But even Democratic-leaning economists acknowledge that tax credits are an inefficient way to expand educational opportunity: most of the benefits would be dissipated on students who would have attended college anyway.

The risk is that Mr Clinton has surrendered the high ground on taxation without offering voters anything particularly appetising. If he gets his advisers, Mr Dole will emphasise the need for across-the-board cuts in tax rates to stimulate more saving, investment and growth. He will argue that the economy's annual growth rate of little more than 2 per cent is pathetic by the standards of the 1960s, and blame the slowdown on Mr Clinton's big tax increase. And he will promise that a tax cut will be followed in a Dole presidency by radical reforms to simplify the entire tax code.

Mr Dole's supporters are urging him to promise a 15 per cent cut in income tax rates because this would in effect wipe away the Clinton tax increase, returning revenues to roughly the same share of GDP as in 1992. As a political gesture, this might have a certain resonance with voters. But whether someone as fiscally conservative as Mr Dole can bring himself to be bold — some would say irresponsible — remains to be seen. To maintain credibility, he would have to identify spending reductions that would offset a good deal of any proposed tax cut. That can be excruciatingly difficult, as Newt Gingrich found to his cost last year.

Leave judges' role on sentencing alone

From Mr Keith Wedmore

Sir, "At the apparent whim of the judge . . . a totally inadequate sentence" (Letters, June 5), Rubbish! The point of principle here, which nobody seems willing to canvass, is the question of function. Whose job is it to do what?

Parliament, let alone the electorate, is not trained and experienced in sentencing, nor has it any idea of the

circumstances of this offence, or the character and position of this offender. That is the job, duty, training and opportunity of judges.

To take it from them is not only

an affront to the separation of powers, it derogates from

good government and from

justice.

In several places he makes

the point that there is a

business view of Europe and a

political view. With regard to

the 1975 referendum, for

example, he says that "our

arguments had more substance

than those of the politicians".

He characterises the political

debate as so lacking in quality

as to leave him "close to

despair" and claims that "some

politicians and media

commentators seem to show

little respect for . . . our fellow

citizens". Yet nowhere does Mr Fitzgerald show any

realisation of the increasing

antagonism of his fellow

citizens to the onward march

of the EU towards political

union.

If that is typical, and I think

it is, big business is as out of

touch with the hopes and fears

of so-called ordinary people as

the big bureaucracies in

Whitehall and Brussels. Many

in those camps make it clear

that they think Europe is

beyond the ken of the common

man and must perform be left

to the business and

bureaucratic elites to decide

upon.

It is that arrogance which is

at the root of the present

widespread malaise. Unless the

CBI, along with Whitehall and

Brussels, mend their ways and

recognise that there is a

politics to economics which

will ultimately determine our

future.

Sorry, Mr Fitzgerald, but

withdrawal from the EU is an

option and one that is not

"irresponsible and

"self-indulgent". You do not

have to be in the EU to trade

with it — ask Norway.

LETTERS TO THE EDITOR.

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UK big business out of touch with real feeling on EU



fate, nothing constructive will be achieved.

Andrew Phillips,
Bates, Wells & Braithwaite,
solicitors,
61 Charterhouse Street,
London, EC1M 6HA, UK

From A.M. Miller,

Sir, Mr Niall Fitzgerald's article was unfortunately full of the soundbite Europe we continually hear from bureaucratic, politically motivated Confederation of British Industry heads.

Statements such as "... it is fundamental to our success that the UK remains at the heart of Europe... the economic consequences of withdrawal would be horrific... tariffs would be imposed by Brussels on UK goods and services... no multinationals would invest in the UK... withdrawal is not an option" are typical examples.

Sorry, Mr Fitzgerald, but withdrawal from the EU is an option and one that is not "irresponsible and self-indulgent". You do not have to be in the EU to trade with it — ask Norway.

Switzerland, or the US, all of which export significantly more per capita to the EU than the UK. And they do not have to pay £4bn (£8.16bn) a year for the privilege.

The problem with the EU is that it is anti-free trade. The Common Agricultural Policy is a prime example of this. The EU is mainly there to put up barriers to the rest of the world, especially Japan, keep obsolete French peasants in business, protect the overpayment of codified German industrial workers, and give jobs to lots of parasitic bureaucrats in Brussels. Joining a Fortress Europe would cut the UK off from the dynamic economies of the far east and North America. We would be better buying cheap food from New Zealand and cheap cars from the Far East than expensive food from France and expensive cars from Germany.

Furthermore, if we had a free-trade policy there would be no need to employ bureaucrats — but perhaps this is what Mr Fitzgerald is most afraid of, as he is clearly one and anxious to join the Euro-gravy train.

A.M. Miller,
Harris & Sheldon Group,
North Court,
Packington Park, Meriden,
via Coventry, UK

From Mr D.R. Chandler.

Sir, I enjoyed the spoof article by Niall Fitzgerald despairing of the quality of debate regarding Britain's membership of the European Union. However, I think most politicians would draw the line at stringing quite so many clichés together.

Maybe membership of the EU is the new religion promising us all nirvana?

D.R. Chandler,
18 Homefield Road,
Bromley, Kent, UK

US proves the opposite

From Mr Denis MacShane MP.

Sir, You report ("Defeat over US minimum wage", May 24) that 77 Republicans joined

Democrats in the House of

Representatives to raise the

minimum wage by 90 cents to

\$5.15 an hour — about £3.45.

The US has the best

job-creation record in the

OECD, yet a constant refrain

from the British Conservatives

is that a minimum wage costs

jobs. The US experience proves

the opposite.

Denis MacShane,

House of Commons,

London SW1A 0AA, UK

The European Union has swept away mountains of forms and miles of red tape

to the single market for improving our competitiveness and increasing prosperity has not yet been fully tapped.

The net cost for each Briton of the EU's budget expenditure in 1994 was 2p, or four postage stamps a year. If you think the year not typical and take a three-year average, the net cost is still less than half of one National Lottery entry a week.

EU membership has also helped the UK keep inflation down. As for economic growth, it is true that Europe has seen a slowdown at the end of last year and early this year. But we need to keep a sense of perspective. The EU still grew faster last year than the US and Japanese economies. In money terms the growth in the EU was greater than the total growth of the "Asian tigers" and China.

It is a serious mistake to underestimate the strength of the European economy and its trading weight. Britain exports more to Belgium and the Netherlands than to the US; its exports to Germany equal those to the US and Japan combined; it exports as much to France as to the whole of the Commonwealth. In 10 years British financial and other business services have tripled their trade surplus with the rest of Europe. At the end of last year the UK's trade deficit with countries outside the EU had deteriorated to its worst level in seven years.

There is a lot of misunderstanding about the EU budget. It is about 2.5 per cent of total public expenditure in all member states and at present about 1.2 per cent of Europe's gross national product.

Observers saw no fraud at Albania elections

From Mr Jonathan Sunley.

Sir, What makes Edward Mortimer think that President Sali Berisha might have frustrated the will of those Albanians set on voting against him ("The awkward squad", June 5)?

Yes, accusations of irregularities have been leveled against the first round of Albania's parliamentary elections held on May 26. It is noticeable, however, that both the FT and most other newspapers which have picked up on these, have only been citing the opinions of individual observers from the UK, Norway and Germany (for example, your report on May

Jonathan Sunley,
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use of riot police to disperse a protest demonstration organised by the opposition two days after the first round. It must be borne in mind, however, that had jubilant supporters of the Democratic party entered the main square in Tirana where this rally was planned to take place, there might have been bloodshed on a far larger scale. In these circumstances, the Albanian authorities' decision to forestall the possibility of such head-on clashes was a pragmatic one.

Understandably, many have expressed indignation at the

gross national product.

Contrary to the general impression in Britain, this is what has happened to Community spending in the past two years: in 1994 it fell by 7.3 per cent, that is to say by more than £3

FINANCIAL TIMES

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The chips are down

The five-year-old semiconductor agreement between Japan and the US has long been a model of how not to conduct international trade policy. When it expires this July, it will not be missed. The danger is, however, that it will be replaced by another arrangement almost as bad.

The present agreement has several unattractive features. Because it is bilateral, it risks discriminating against third parties. By setting numerical targets for foreign chip sales in Japan, it encourages managed trade. Japan and the US interpret these targets very differently, aggravating diplomatic tension between them.

It is not surprising that Japan has refused to renew the agreement. However, that does not justify Tokyo's proposed solution, apparently endorsed last week by European chipmakers. That is a semiconductor industry collaboration pact which would link all the world's chipmakers. Its scope is unclear, but the Japanese industry has suggested it should cover relations between semiconductor producers and users, standardisation, environment and safety, intellectual property rights and the exchange of market data.

The proposal would not directly replace the US-Japan agreement, nor apparently address the same issues. It could play a positive role by helping Japan deflect US pressure for renewed numerical targets. And by including producers from the EU and other chipmakers.

Irish theatre

The opening session of talks on the future of Northern Ireland seems set to prove an uncomfortable spectacle. Barring a last-minute re-instatement of the IRA ceasefire, representatives of Sinn Féin, rightly, will be turned away at the door. Their noisy protest will be echoed by unionist complaints about the pivotal role in the negotiations of Mr George Mitchell, the former US senator.

So the odds are that optimistic statements by Mr John Major and Mr John Bruton, the UK and Irish prime ministers, will quickly be followed by intense wrangling among the invited parties about the way the negotiations are to be conducted. There are already fears that Mr Ian Paisley's Democratic Unionists will look for an early opportunity to stage a theatrical walkout.

Those who have watched so many other past initiatives in the province founder on the rock of constitutional mistrust may be forgiven for predicting that this one is destined for the same fate. The last serious political talks, in 1991-92, collapsed in deadlock.

But before bowing to the fashionable gloom, it is worth recalling the essential aim of this latest set of negotiations. The constitutional parties in the province are being asked to hammer out a set of political arrangements to which unionists and nationalists alike could offer allegiance.

The ingredients of such a settlement are clear: a new Northern Ireland assembly which guarantees and respects the rights of the minority as well as the majority in Northern Ireland.

All bull

A curious feature of capital markets is their ability to become rationally obsessed with a single monthly statistic. In the period when money supply targeting was a vogue in the 1980s, investors in the English-speaking economies were manically preoccupied with the movements of the money supply. Today the equivalent obsession is with the US non-farm payroll data, which reflects the abysmal concern with output gaps - the difference between actual and potential output, which can be used as a measure of the key inflationary pressure in the economy.

Obsession breeds extreme reactions. When the payroll data dived on Friday the Dow Jones Industrial Average took a neurotic point dive in the 30 minutes that followed the announcement, only to end nearly 30 points up on the previous day's close. Such behaviour is not confined to statistics. Gurus in a field comparable power. In the 1970s and 1980s there were ones when markets hung on every word uttered by Mr Henry Kissinger or, in Britain, Mr Gordon Brown. Today Mr George Soros of hedge-fund fame enjoys the esteem that he can admit to billion-dollar losses without facing face or influence.

Perhaps the greatest current one of them all is US Federal Reserve chairman Mr Alan Greenspan. His record has been undeniably impressive, which is why his

COMMENT & ANALYSIS

FT Interview · Bill Gates

Challenges to the seat of power

Microsoft's chairman is making up for lost time as competitors establish their places in the Internet market, say Louise Kehoe and Hugo Dixon

If you sit still, the value of what you have drops to zero pretty quickly." Bill Gates is not sitting still, literally or figuratively. The Microsoft chairman and chief executive rocks vigorously back and forth as he fields questions about his company's response to competition from Internet software developers.

The rapid to-and-fro motion, a well-known Gates mannerism, seems particularly appropriate. He was caught napping, critics charge, by the rapid advance of the Internet and the European Commission.

There are sound commercial reasons for cross-border collaboration in an industry as international as semiconductors. But these do not require the blessing, still less the active support, of governments. The danger is that, by design or by default, their involvement would turn the proposed "market-driven" cooperation into politically motivated collusion, which would promote the interests of producers against those of consumers. That risk is particularly great in a highly capital-intensive business prone to big price swings - a trend highlighted by the current sharp downward trend in the pricing cycle.

The US seems unlikely to find the EU-Japan proposal attractive, suggesting it may not go far. But Japan and the EU might draw a useful lesson from this episode. The present US-Japan agreement is indeed objectionable. But it should not be replaced with a scheme which risks perpetuating political involvement in this crucial industry.

The proposal would not directly replace the US-Japan agreement, nor apparently address the same issues. It could play a positive role by helping Japan deflect US pressure for renewed numerical targets. And by including producers from the EU and other chipmakers.

Now, as the world leader in personal computer software, Microsoft is being forced to adapt to the emergence of the Internet which is bringing new standards for how computers communicate. If he does not keep pace with his rivals, Microsoft PC software could be eclipsed.

Yet unlike IBM, whose sclerotic culture prevented it from adapting to change, Mr Gates is now moving rapidly to make up for lost time. Indeed, he is preparing to unveil the latest stage in his Internet counter-attack - his plans for corporate "intranets", office networks that adhere to Internet standards - by a day-long presentation to customers, analysts and the media in California's Silicon Valley - this week.

His notoriously competitive spirit, which helped Microsoft achieve its dominant role for PC operating systems and applications, is now trained on his Internet rivals. "The fact is that most of our operating system competitors seem fatigued. Fine, now we have got new competitors," he says. "It is always fun to be the underdog."

The motto for the fightback is "embrace and extend". In practical terms, this means putting the Internet at the centre of everything Microsoft does, he says. "The Internet is not a fad in any way. It is a fantastic thing; it makes software and computers more relevant."

His strategy is quickly to adapt Microsoft's core products so that they can use the existing capabilities of the Internet while creating new types of Internet programs ahead of his competitors.

Microsoft, however, is coming from behind. The company that virtually owns the playing field for the PC software market is being forced to play on its competitor's turf for the first time in many years. Without the "home-field" advantage of control over standards to which it is accustomed, Microsoft's technical prowess will be put to the test.

The challenge comes from three main sources. The first is Sun Microsystems, the leading manufacturer of servers, the computers that store information distributed through the Internet and intranets. Sun has created Java, a programming language that is catching on fast among application software developers. On the back of Java's success, Sun has recently launched a range of related products that together constitute a new computing "platform" to compete with

Microsoft's counter-attack has been vicious. Not only is it giving away its competing browser over the Internet; it has recently signed deals with America Online and CompuServe, the two largest online information service companies, to adopt the Microsoft browser in exchange for promoting their services on future versions of Windows. He is also giving away soft-

ware for Internet servers to anybody who buys the Windows NT operating system for business users.

Netscape, which receives most of its revenues from selling server software, has had to slash prices on its basic server programs in response.

"Our business model works even if all Internet software is free," says Mr Gates. "We are still selling operating systems. What does Netscape's business model look like if that happens? Not very good."

So much for Netscape. But what about the notion that network computers will usurp the role of the PC on office desktops and in the living rooms of consumers?

Although the network computer has yet to be tested in the market, it has struck a chord, particularly among those who buy computers for large companies. The attraction is not so much the cheap hardware, but the promise that network computers will be easier to maintain and support, cutting the cost of ownership of desktop computers.

In an office network environment, PCs can cost more than \$10,000 a year, according to several industry studies. This includes the costs of user support, software and hardware upgrades, maintenance and other factors as well as the purchase price. If network computers take off, they could pose another threat to Microsoft because they would probably deploy software developed by Microsoft's rivals.

Mr Gates argues that, with Windows 95, there has been a "huge advance" in reducing the total cost of owning a PC because both hardware and software upgrades have been simplified. Moreover, Internet communications will enable further improvements, he says, because it

will be possible to provide advice and help to PC users online.

That said, he is scathing of those who want to cut the basic of owning computers by curbing their range of functions. "If you keep taking away things, you eventually get back to paper and pencil," he says.

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says, PCs will be used in different ways. "Take video-conferencing [on PCs]. The amount of money the world is going to save through these new communications tools is absolutely mind-blowing."

Speech recognition technology, under development at Microsoft and elsewhere, will enable people to talk to their PCs. Advances in multimedia technologies will allow PCs to display complex three-dimensional graphics on Internet pages that are individually tailored to a user's interests and needs, he predicts. All this will require more computer power and no doubt more Microsoft programs.

But what about all those people who do not have computers because they are too complex or expensive? Even in the US, fewer than 40 per cent of homes have PCs. "You are right, it is embarrassing. We are only managing to sell 70m PCs a year. That is the headline!"

In other words, the PC business is going from strength to strength, and Mr Gates is seated firmly at the wheel.



OBSERVER

In Gandhi's footsteps

Mahatma Gandhi, famously opposed to parades in official appointments, would probably not have approved. But through circuit court his grandson Gopal has been accommodated as India's new high commissioner in South Africa. And the Indian foreign service is not warmly disposed to the move.

There is special resonance to the younger Gandhi's appointment - his grandfather spent two decades in South Africa pitting his legal wits against the race laws of Jan Smuts' government at the beginning of the century.

Nevertheless, Gopal's arrival is prompting some undiplomatic comment in Delhi's South Block; the Foreign Service has a smily disdain for the boys at "Home", the Indian Administrative Service where Gopal forged his career.

Until the early 1990s, that is, when he took up the plum post of director of the Nehru Centre in London, a sort of cultural ambassador at large, overseeing London's finest centre for India arts and culture. The job's grace and favour character - with an apartment in fashionable Mayfair - has made the incumbent the envy of expatriate Indian society.

But with his tenancy approaching an end, Gopal is said to have sought intervention from

no less than former Indian prime minister P.V. Narasimha Rao, via the London High Commission. And Rao, in what must have been one of his last acts before being eased out of office last month, apparently approved the move.

An old Indian diplomatic source said: "The boys are really rather good at this sort of thing. It was done so smoothly that we just did not have time to put up to the test."

Shadow boxing

The British Labour party gets ever more like the ruling Tories. Well, half of the Tories. Those making the trek to the CBI's Business in Europe conference in Birmingham on Wednesday morning can expect to hear Gordon Brown, the shadow chancellor sounding very like his Tory counterpart, Ian Lang, the industry secretary.

To the dismay of world-be monopolists, over the past year Brown has been letting drop his view that competitiveness abroad begins with competition at home. Labour is likely to tell the CBI, will wage war on vested interests. Very like the stance Ian Lang has used so successfully to distinguish himself from his predecessor, Michael Heseltine.

Like Lang, too, Brown may well call for more liberalisation of European markets, as he did in Bonn last month. But there is one big difference. Labour is at least

willing to contemplate civil relations with continental Europe. For once, the CBI could be happier to see a Labour politician than a Tory. A turning-point of sorts.

Poor Germany

Tired old enemy images stick. It is perhaps no surprise that British schoolchildren associate Germany with a war which ended 40 years before they were born. More curious, according to a survey out today, is that they believed the wealthier Federal Republic to be the poorest country in Europe.

They apparently think it's even poorer than Bosnia. They also think it is the most boring country in Europe. Perhaps that may explain why they overwhelmingly voted it as the country they would least like to visit.

The survey of 500 kids was put together by Gestetner, the office equipment company, as part of a scheme to encourage businesses to donate second-hand fax machines to schools, and promote cross-border communication. They certainly appear to need it.

More than one third of the kids seem to think the US is a member of the European Union, and almost half think Australia is.

Stereotypes about Germany aside, they associate France with snails and frogs' legs, Italy with pizza and football, Spain with sunshine, and Belgium by an overwhelming 92 per cent) with

chocolate. And EuroDisney can take comfort - children associate it with France even more than traditional images of wine and oysters.

The Queen and the weather are the two images children most associate with England. But not for long - next century, they fear, the Queen might "get the sack" because England won't be one country any more."

BBC gold

When John Birt, the BBC director-general, was leaving LWT, the weekend commercial broadcaster for London, to take up his new post, he is said to have announced the surrender of his share options. In his final conversation with LWT chairman Christopher Bland, he was supposedly told:

"You can have money or glory, but you can't have both." Small consolation: Birt saw his former colleague become a multi-millionaire on the back of LWT shares - and then also become chairman of the BBC.

Birt could Bland, once again, his boss, now be more forthcoming? Pressed on Friday to reveal what one hack called Birt's "remuneration", Sir Christopher said that while the length of Birt's contract had been extended, they hadn't talked money.

Bland might now feel that remuneration of Birt's package was in order.

50 years ago

The Cycle Craze

The speed of the cycle craze is a theme on which many of the American manufacturers' journals are just now descending at length. The importance of the industry is such that there are already 250 factories at work with an aggregate capital of \$60,000,000 or more. The South is taking the matter up, and as scarcely a bicycle has yet been made in that portion of the States, the big factory now being started in Atlanta is of some interest. It is worth noting, too, that the important Hagerstown factory, where some 1,700 men work, is preparing to open a branch in Europe.

The Motor Industry A number of journalists and gentlemen interested in the development of the new motor industry took part yesterday in a visit to Coventry on the invitation of Mr. Harry J. Lawson. On arriving at their destination, the party proceeded to the buildings secured by the Daimler Motor Company.

Engines of 750 horsepower are already constructed, and Mr. Simms, engineer to the company, said that the preparations would probably be sufficiently advanced for the commencement of operations in about a fortnight's time.

